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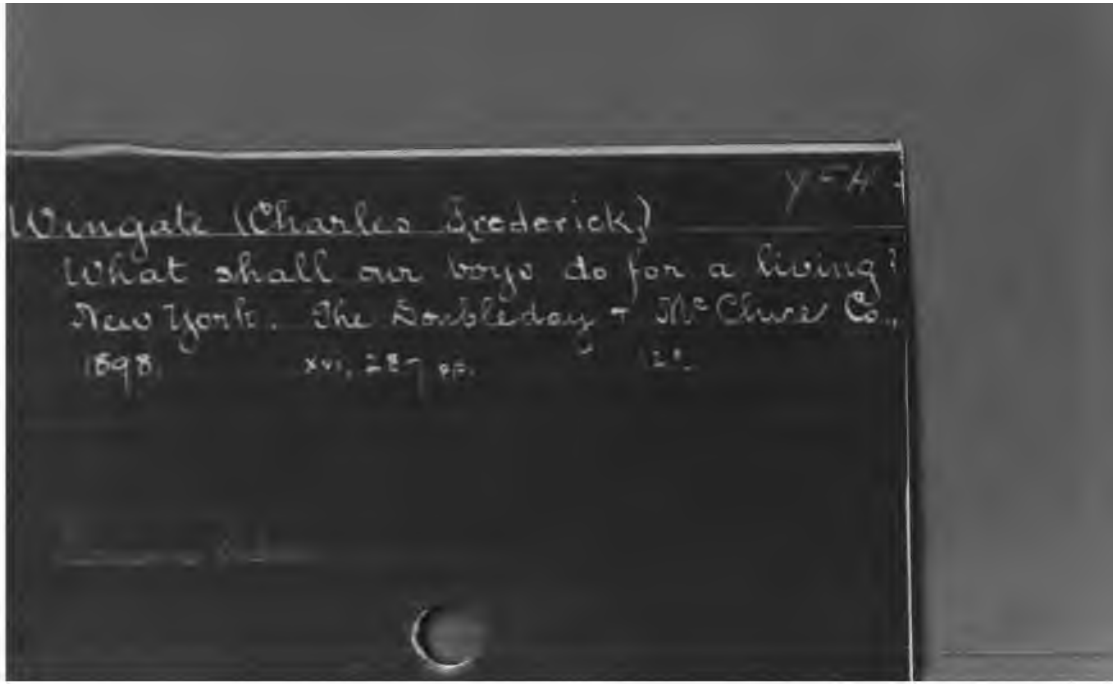
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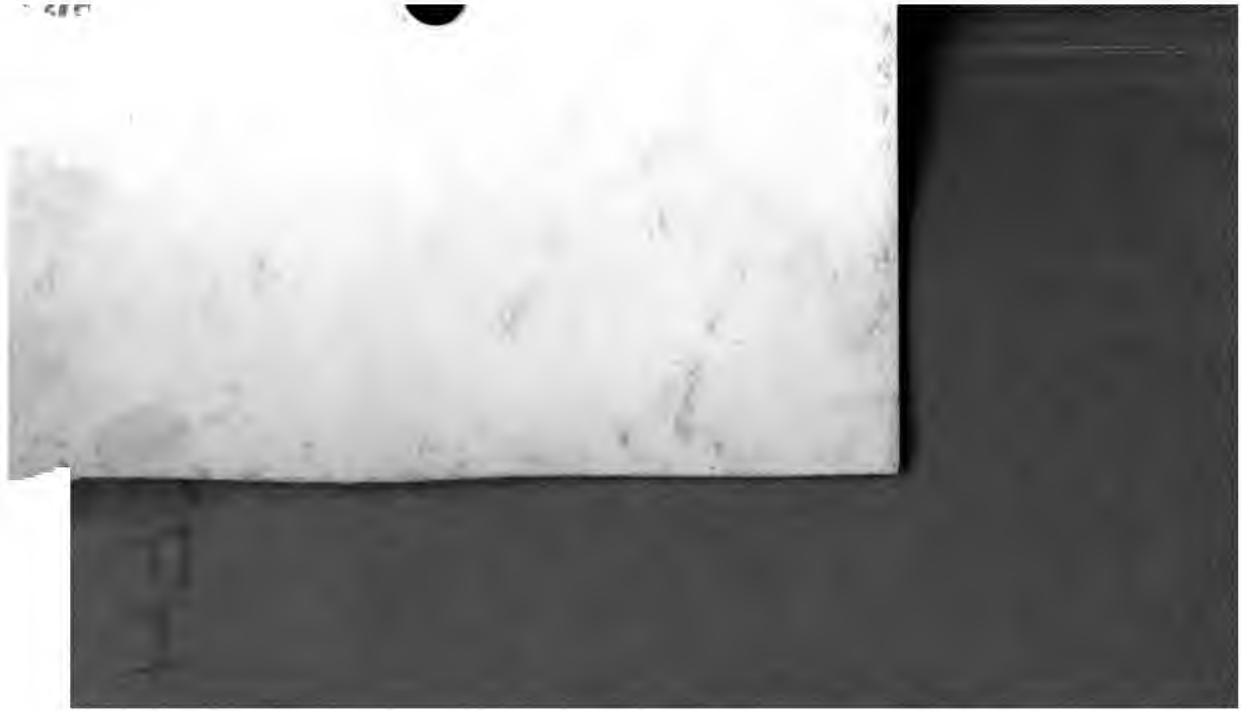

WHAT SHALL OUR BOYS DO FOR A LIVING?

WHAT SHALL OUR BOYS DO FOR A LIVING?

BY CHARLES F. WINGATE

NEW YORK
THE DOUBLEDAY & McCLURE COMPANY
1898

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TO MY MOTHER,

WHO ENDOWED ME WITH HEALTH, A CHEERFUL SPIRIT, COURAGE TO FACE TRIALS AND PHILOSOPHY TO BEAR THEM, AND A LOVE OF WHOLESOME READING; AND WHO MADE THE HOME A PLACE TO ENJOY AND A SAFEGUARD AGAINST TEMPTATION, I DEDICATE THIS LITTLE BOOK.

"Of the Mother, I cannot think of anything to say. She is just the Mother—our own dear, patient, loving little Mother—unlike every one else in the world, and yet it seems as if there was nothing to say about her by which one could make any one understand what she is."

Chronicles of the Schönberg-Cotta Family.

INTRODUCTION.

THOUSANDS of fathers and mothers are anxiously considering their son's careers, while hundreds of thousands of boys all over the land are picturing their future in glowing colors. In other countries the parents usually decide such matters, but "Young America" likes to act for himself. Next to selecting a wife, the choice of a calling is the most important act of a man's life. If he makes a mistake he may change later on, but it is better to start right and avoid getting the square peg in the round hole. Mrs. Browning says:

> "The cygnet finds the water, but the man
> Is born in ignorance of his element."

Cromwell and Hampden had reached middle age before they entered on their true vocation. Grant tanned and Sherman taught school until the Civil War brought them opportunity. Many other notable men and women never "discovered themselves," as the French say, until they had waited and struggled for years.

Few persons possess either sufficient experience or judgment to advise others what calling to follow. It seems strange that no one has written a book on the subject before. Plenty of advice is to be had about the value of honesty, industry and thrift. But what

the young need most is plain facts about different occupations, particularly the new ones, with their advantages and drawbacks; how to enter and how to get on in them, with other practical and specific information. My chief aim has been to show the value of thorough training, and that there is a demand for capable men in every calling. I have laid special stress on inclination and aptitude, and have tried to tell young men how to find their special bent, if they have any. Home training is fully discussed, and also the influence of environment. Finally, I urge the importance of health and good address, and the value of the facility of writing and talking, as aids to success.

I have tried my hand at several things, and can speak with some familiarity of business, journalism, engineering, and real-estate development. I know the trials of beginning at the foot of the ladder, and of entering a virgin field. I have had to learn some things without a teacher, and appreciate the value of expert knowledge. I have faced disaster without flinching, and been disciplined by failure. I know the emptiness of merely material success, and the sustaining power of high ideals. I can therefore sympathize with the struggling, and with those who have failed to win the prizes of life.

I have been gathering material for the present volume for many years. In reading the biography of any person, I have noted how he was educated; how he got his first start; how long he had to wait for recognition; whether he had setbacks or disappointments, and what was their effect upon him. I have questioned scores of men and women regarding how

to form character, and how to give the young a start in life.

It has been no small task to boil down this information. The result is far from satisfactory. I suspect that there are more plums than pudding, but little Jack won't mind. I have aimed to make a useful rather than a brilliant book. If I had had more time, it would be briefer and better. But life is short.

I have told my story in plain English, so that he who runs may read; and have avoided fine writing, padding, and exaggeration. There is no use in filling young people's minds with vain hopes. Not every one can make a fortune or a national reputation, but he who possesses health, ordinary ability, honesty and industry can at least earn a livelihood.

I don't particularly care for the "smart Alecks," who will always make their way. My chief concern is for the average boy, who distrusts himself, and who needs to be shown that the race is not always to the swift, that "slow and easy goes far in a day," that brilliant men are wayward, and that there are plenty of opportunities for ordinary folks to win the comforts of life, and perhaps more.

I hope by setting up a few guideposts on life's pathway to prevent the beginner from taking a leap in the dark, and to save him from wasted effort.

C. F. W.

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CHAPTER I.

INCLINATION.

What Do you Want to Do?—The Child Father of the Man—Early Traits of Children—Boys' Games and Occupations.

If you ask, "What shall I do?" I answer, "What do you want to do?" Do you delight in any one occupation? Are you inclined to study, or do you prefer practical things? Do you like to handle tools? Can you draw with any skill? Have you the bargaining faculty? Or do you aspire above all things to make money?

Again, what books interest you—history, travels, biography, fiction, science, or mechanics? In the lives of famous men what actions move you to emulation, the exploits of heroes like Sherman and Farragut; the struggles of inventors like Goodyear and Howe; the explorations of Dr. Kane, Fremont, Stanley, and Livingstone; the deeds of navigators;

the triumphs of orators; the successes of lawyers and editors; the surgeon's skill or the engineer's labors? Most young folks long for a life of adventure like that of Kit Carson and Buffalo Bill, but they soon outgrow such fancies.

If you have any special desire, define it clearly. Write it down thus: "I would be a lawyer or an editor, a merchant or an engineer." See how it looks in plain English, and think it over. This simple act may convince you that you are mistaken, or it may decide your future. If you want to do anything very much, "the way is apt to open," as the Quakers say. "What you *will*, that you can do." "Thoughts are acts."

"But suppose I have no choice?" I answer, very few young persons have, and their lives are usually shaped by accident or chance. But there is a decided advantage in having a definite and clear purpose in life, to know what port your ship is bound for, and not to drift at the mercy of every passing breeze.

All pursuits have their good and bad sides, and there is no royal road to prosperity. The average man is fitted quite as well for one occupation as for another, and the same principles of action will bring success in every line of effort. Aptitude comes as much from special training as from native gifts. The "all-round" man will make his way anywhere.

A boy of fifteen, near Philadelphia, fretted and annoyed his friends by refusing to study, and was always hanging around the church and seizing chances to play the organ. No one discerned the boy's latent musical gifts, till the rector was consulted in the

developed, has been paid as high as $75 a week as a violinist, with prospects of a brilliant future.

Such parental blunders seem almost criminal, yet it is difficult to prevent them.

As the new-born duck takes to the water, so Benjamin West painted the baby asleep in the cradle, Webster committed the Constitution of the United States printed on a handkerchief to memory, and a thousand other youth instinctively turned toward the bourne of their desires. Little Tom Macaulay, stretched on a rug at Hannah More's house with a book in one hand and a slice of bread in the other, was the precursor of Lord Macaulay, the historian, just as James Watt, curiously watching his aunt's tea-kettle, was the progenitor of the inventor of the steam-engine.

Charles Kingsley, a clergyman's son, began to preach to a congregation of chairs, when he was four; at seven he interrupted a Latin lesson to point to the grate with the exclamation: "Papa, there's pyrites in the coal"; his poetic imagination found free development among the Fens, while his early impressions of life in a Devonshire port resulted in the poem of the "Three Fishers."

Where a boy has strong and positive tendencies, it is not wise to oppose them. The child is father to the man. Observe what traits he inherits, and whom among his relatives he most resembles; whether he has mechanical or musical or mathematical gifts. Notice what kind of playmates he selects, and what amusements give him most pleasure. Does he enjoy whittling and handling tools? Is he forever poring over books? Has he any fondness for drawing?

Does he like to swap marbles and jack-knives with his friends? With boys of strong natures it is easy to find some clew to their natural tendencies. Often they choose their own pursuit in life and save their friends the trouble.

It is more difficult with the youth who is wrong-headed or fanciful; who wants to be a pirate, or to fight Indians, or to go to sea. Such boys must be handled like young colts, with tact and discretion.

Then there are the "Miss Nancy" kind of youth, who will not venture to do anything that is not genteel, and who dislike to soil their delicate fingers. With such finical fellows I have small concern. A berth in a broker's or law office, where the hours are short and the work easy, with the companionship of other dudes, will satisfy them.

Lastly, and most important, are the boys who make up the great average, who have no special capacity or tendency in any one direction, but who are steady, honest, fairly intelligent, with moderate energy; who will keep pegging away, and, if properly started in life, will at least gain a decent living. They are the sons of Lincoln's "plain people"; and, while they may not set the Thames on fire, they will, in most cases, get along in the world.

The future lot of most boys is usually the result of circumstance. If they make a wise choice, and the square peg gets into the square hole, happy are they. But if the born machinist becomes a lawyer's clerk or book-keeper, and the natural farmer takes to selling dry-goods, they will surely regret it later on, and will wish they had had some wise counsellor to set

them right at the start. Like David Crockett, "Be sure you are right, and then go ahead."

Fifty-four pupils in the High School at Salina, Kansas, were lately asked what calling they preferred. Four chose law, six business, three wanted to be book-keepers, one to study medicine, two preferred the railroad service,—not a single boy wanted to be a teacher, or a stenographer, or to learn a trade. One wanted to be a musician and another to be a politician (!). More than half had changed their earlier plans, because they had not enough means to carry them out.

CHAPTER II.

QUALIFICATIONS.

Aptitude—Strong and Weak Points—Law of Compensation—Sharpen your Tools — Self-Examination — Two Examination-Papers.

NEXT to inclination comes the question of aptitude. Youth is ambitious. It would scale the stars and plan impossible deeds. It is wise, therefore, to gauge your mental and physical powers, and by study and comparison with others learn your strong and weak points.

The soldier looks to his weapons before battle. The jockey tightens his girths and examines every buckle and strap in his harness. The mariner sounds his pumps and overhauls his ship before sailing. The locomotive engineer oils his cranks and sees that the valves and gauges are in order. So also the youth should carefully consider his equipment for life's contest. Most men possess the same mental traits, but in varying proportions. It is common to rate every one by his best gifts, but a man, like a chain, is no stronger than his weakest part. All have "the faults of their qualities." The bright boy will be rash, the slow youth over-cautious. If you can lift great weights you cannot be a runner, and the agile athlete is no Hercules. The bookworm will be distanced in practical affairs, while the rule-of-thumb man cannot cope with the trained expert.

So, also, intellectual brilliancy is often neutralized by moral weakness. The highest genius may be offset by a lazy or procrastinating habit. How many gifted men have been destroyed by dissipation? The Law of Compensation, so finely illustrated by Emerson, should encourage the young man of moderate abilities, and warn his brilliant rival not to be overconfident. Any moral taint infects the whole man. "He that ruleth his spirit is greater than he that taketh a city." Therefore fortify your weak points, and thus strengthen your resources.

The whole aim of education should be to develop a man's higher nature; to teach him to understand and *master* himself; to supply a sword to cut his way, and a shield to guard him from the enemy's assaults. Mental development will not serve without moral growth, any more than a ship can face a storm without a rudder.

You can get some help in self-knowledge from phrenology, though its analysis of the mind is empirical and its practitioners are apt to flatter their patrons. It will at least give you some idea of your tendencies, and it may save you from attempting things for which you are wholly unfitted.

In the old myth the good fairy's gifts to the infant were always offset by some ill fortune. Like Achilles, every one is vulnerable in some spot. Erastus Brooks used to say, "Every man has some form of drunk." Therefore do not boast of your strength, but humbly pray *not* to be led into temptation, and be charitable toward those who fail to resist it.

I would rather have the moral equipment of a Sumner or Garrison, Horace Mann or "Chinese"

Gordon, than the most gigantic intellect bereft of principle. The instant a public man shows moral delinquency, whether he be a Webster, a Colfax, a Parnell, Sir Charles Dilke or Boulanger, he loses the esteem of the best people. Therefore do not envy or be abashed because other men are brilliant, but wait and see what are the compensating qualities in their make-up.

Most young persons exclaim: "I want to *do* something!" But they must first *be* something, and to this end they must study and train themselves. To get knowledge costs labor and time. Are you willing to make the effort?

In every calling capacity is the chief element of success. If you have something salable to dispose of, you can usually command your price. Talent is latent, but skill is due to training. The poet is born, but practice makes perfect.

A man's brain, like any other tool, must have an edge to it. Therefore, I say to young men: *Sharpen your tools* on any grindstone you can find—books, school-teachers, lectures, conversation, or contact with men or things. This is what we call education—development from within, not a plaster placed without.

Ward's "Indian Hunter" in Central Park, New York, shows the untutored savage, with no weapons but his bow and no aid but his dog, but with every faculty trained to the utmost. He is "a whole man," and not, like so many civilized beings, a warped, inert, incapable creature. Much of the mental equipment furnished in our schools and colleges suggests Saul's cumbersome armor, which David rejected in favor of his sling; or it may be compared to the

firecrackers and gongs with which the Chinese frighten their enemies. George Combe's admirable simile of the sailor preparing for a voyage, yet ignorant of his destination; without a chart, not knowing what cargo he carries or what to do with it, is still applicable to the graduates of many schools.

It would be a good discipline for any one to *honestly* set down his exact mental and moral traits, after the manner of an application for life insurance, or of a civil-service blank, thus:

Do you come of healthy stock?

What are your weak points physically?

Do you inherit energy, industry, courage and nerve?

Are you lazy, selfish, fond of display, extravagant, vain, prone to any form of dissipation, or untruthful?

Do you like work?

Do you ever save?

Who are your heroes, and what are your ideals?

Do you wish merely to have money and enjoy life?

What are your favorite books and authors?

With whom do you associate, and are you made better or worse by such associates?

Are you at all interested in public affairs?

Suppose a young man should prepare an advertisement or poster after the style of the Horse or Dog Show, setting forth his qualifications and pedigree, somewhat in this fashion:

CASE NO. 1.

Stock: Good English blood, with respectable surroundings and cultivated associates.

Training: Not broken to harness. Has been

through a public school and college, but has never been taught anything practical.

Habits: Don't like hard work, and shies at obstacles and tough pulling. Temper, fair; doesn't bite or kick, but has never been tested.

CASE NO. 2.

Capacity: Can work ten hours a day with relish. Understands two languages. Can write and speak English correctly. Has practised at a debating-club, and knows how to talk on his feet.

Temper: Genial, sociable, makes friends easily, yet is not given to dissipation. Ambitious, confident, yet not conceited; has a vein of caution. Saves a little money every year.

Training: Has had some drill in a business college, and has travelled considerably.

Has no bad habits.

Suppose you also answer the following questions.

What do you know of the every-day things right around you?

Could you explain the working of the telephone, steam-engine, or electric light?

Can you distinguish one common forest-tree from another by its leaves or bark?

Do you know the points of a horse?

Can you tell a good painting or statue from a bad one?

Have you heard the notable preachers or orators of your time, or visited the famous institutions of your home?

Do you read the best books and periodicals or the worst?

Could you explain to an intelligent and curious foreigner how an election for president or governor is conducted, or why you believe in a democratic form of government?

Have you ever been through a printing-establishment, rolling-mill, ship-yard, grain-elevator, prison, or fort?

Can you talk intelligently to a company of half a dozen persons without diffidence or effrontery?

Can you sail a boat, swim, shoot, skate, chop a tree, or plow a furrow?

If you were shipwrecked and cast on a desert island, could you be of any real service?

Have you ever *earned* $10 at one time?

I fancy such a test would take the conceit out of some youngsters.

CHAPTER III.

PHYSICAL EQUIPMENT.

Health a Boy's Chief Capital—Value of Staying-Powers—Smoking and Drinking — Danger of Overstudy — Work Performed by Semi-Invalids — Unwholesome Occupations — Outdoor Exercise—Cultivate a Love of Nature—The Strain of Responsibility—Learn to "Go Slow."

PRESIDENT ELIOT says: "Professional success depends largely upon the vigor of the body"; and this is true in every pursuit. A boy should be a good animal. His best luck would be to have healthy parents. Staying-power is a vital factor. The youth who can study longest and work hardest is apt to win first place. If he saps his constitution by cigarette-smoking or dissipation, he simply throws away his chance. Regarding tobacco, I told my son: "You must not smoke until you have reached your growth; then you can decide for yourself." Mr. Beecher said to an audience of business men: "If you want to use your brain to the best advantage, don't fuddle it with liquor." A healthy man has no use for stimulants. Every one knows their danger.

Good health insures cheerfulness as well as endurance. It saves from crankiness, laziness and despondency. How many men are made miserable and become a nuisance to their associates because of dyspepsia? Every young man should read some book

like Combe's or Huxley's "Physiology," and learn how to preserve his health, which is his chief capital.

Edison, who can toil for forty-eight hours without rest or food, knows no leisure and is prematurely old. Napoleon defied fatigue, but he had fits of sleepiness. He lost two battles from over-eating. Nature will have her revenge for any excess. As Dr. Fothergill illustrates in his "Law of Physiological Bankruptcy," every hour of over-strain must be balanced by an hour of rest, or the physical bank will stop payment.

Young men should be warned against over-study. Dr. Hammond mentions two brilliant young men who were offered $10,000, if either graduated at the head of his class. The younger stuck to his books sixteen hours a day, and, failing (from exhaustion, doubtless) increased his study to eighteen hours. He broke down, and died in wild delirium, shouting: "Derby will get the valedictory!"

It is the pace that tells. Those who strain their faculties in youth pay the penalty by premature death or breakdown. Americans must learn to work rationally to accomplish great things.

To the eager beginner, and especially to the delicate youth, I would point to the remarkable achievements of semi-invalids in every walk of life. We have lately seen extraordinary examples of mental vigor at an advanced age in the cases of Gladstone, Von Moltke, Pope Leo XIII., Emerson, Bryant, O. W. Holmes, Commodore Vanderbilt, David Dudley Field, Bismarck, George Bancroft, Cardinal Manning, Dr. Willard Parker, Judge Thurman, and Charles

O'Conor. Yet many of these octogenarians were far from strong in early life.

In choosing an occupation, the question of health is all-important. An active life should always be preferred to a sedentary one. I would rather be a car-driver or conductor than be penned up in a dingy office at twice the pay.

Clergymen are specially long-lived, because their habits are regular. They are not exposed to the elements, seldom miss their meals or their sleep, and have not much worry. Lawyers come next, and literary men and scholars rank high for longevity. Doctors lead irregular lives and die in their prime. Farmers and sailors appear to be healthful, yet they suffer from rheumatism and other effects of exposure. Farmers' wives often become insane because of their monotonous and arduous labor. Factory-hands, printers, tailors, shoemakers, and other persons who labor in ill-ventilated shops and workrooms, especially if exposed to grit or dust, suffer from lung troubles and other disorders. In Great Britain the shortest-lived classes are tavern-keepers and butchers, who are tempted to drink. The ruddy faces of brakemen, drivers, porters, and out-door workers of all kinds show that their occupations are healthful. It is the same with bricklayers and masons, in contrast to miners and file-cutters.

Every youth should join a gymnasium or boat-club, ride a bicycle, and take plenty of out-door exercise. Many employers compel their clerks to take vacations, as they work all the better for the rest and change. Physical exercise is especially needed in cities, to counteract the tendency to deterioration.

Cities are "the great maws which eat up the vital force of the people." Good health is an aid to good morals. The soft-fibred nations are most given to immorality, and create "degenerates." Rational recreation is a safeguard against vice.

Americans are lazy, and too fond of driving and of billiards. They should cultivate the English habit of pedestrianism, and not think that holding the reins behind a trotter is the ideal enjoyment. They should learn to love nature, and then they would take keen delight in rambles amid the woods or by the sea-shore, and in out-door study and observation. Read John Burroughs' bracing books to acquire such tastes.

Exercise should not aim merely to make muscle, but to supply a good appetite, good digestion, and good sleep. Julian Hawthorne points out that champion athletes are mere shells of muscle, who grow stale, pine away, and are old at forty-five; and an English reviewer remarks: "Early maturity means premature decay." Moderation in all things, whether physical or intellectual, is the secret of long life.

Physical strength is essential in many positions. One reason why women cannot compete with men in many occupations is because they cannot lift heavy articles, like printers' forms, or work long hours, or come and go late at night.

A number of men who have won fame and fortune have recently died, while still in the prime of life, notably Col. John Cockerell, formerly of the New York *World;* H. C. Bunner, editor of *Puck;* and Col. F. K. Hain, manager of the Manhattan Elevated Railway. T. C. Potter, who was made general

manager of the Union Pacific, with a salary of $30,000, and a bonus of $10,000 annually, died in two years from over-work. Men in positions of responsibility should refuse to do anything which can be delegated to others, and thus save their strength for really important matters. Corporations and business firms should encourage their managers in so doing, so as to maintain their highest efficiency.

Any one who observes the worn and wearied look on so many men's faces can appreciate that, as Herbert Spencer pointed out in 1882, Americans need to practise "The Gospel of Relaxation." The increasing devotion to wheeling and other forms of out-door exercise is therefore an encouraging sign.

The number of suicides from despondency and nervous exhaustion is evidence of a lack of stamina and pluck, due to our artificial and high-pressure civilization. No man in health should seek self-destruction, or give up the fight, when there are such boundless opportunities to make a fresh start after one or several failures.

Many men become weak and inert, just at the period known to physicians as "the forties," when they should be able to do their best. Young men who are ambitious to achieve great things must husband their resources and recognize the importance of the element of time in all undertakings. Therefore don't be in a hurry, but make haste slowly, "like a star, unhasting—unresting."

CHAPTER IV.

HOW ARE YOU TRAINING YOUR CHILDREN?

Study Children's Traits—Home Training Supplements the School—Make Companions of Children—Table-Talk—Vividness of Early Impressions—Cultivate Children's Curiosity—Don't Coddle Them.

A WELL-KNOWN woman journalist wrote regarding this question, which was the topic for discussion before a New York club: "I don't know how other parents manage, but I am free to admit that my children are training me. I started with some ideas, but so did they, and it is theirs which are being carried out. If any of your club can tell me how I can get ahead a little, I shall be charmed to try the method."

The same confession would doubtless be made by many other American parents. "Train up a boy and away he goes," said Captain Cuttle, yet right training, as a rule, makes good men and women.

We are slowly discovering that we must study our children's mental and moral traits, and the wisest men and women of the age are following Froebel and Pestalozzi, and trying to comprehend just how children observe and reason, and how they grow. It is a hard task, but quite as interesting and perhaps as important, as studying the nature and habits of bees and ants. Kipling says only women understand children, but that, if a mere man keeps very quiet and

humbles himself properly, children will sometimes let him see what they are thinking about. Few fathers, alas! are willing to take that trouble.

Most persons, without much reflection, send their children to school because it is the custom to do it, or because it is convenient to get them out of the way. Few ever visit the school to see how the boy or girl is progressing. All responsibility is thrown on the teacher, and the parents don't bother themselves any further. They want their children to learn to read, write and cipher, and obtain a smattering of useful information and accomplishments; as if that was the sole purpose of education. The value of education as a means toward building character is ignored, and the result is seen in the low standard of achievement attained by the mass of the pupils.

Home training should supply the deficiencies of the school course, but what sort of training are ordinary parents capable of giving?

Harriet Martineau held that home training had advantages on the moral side, but that school training was better on the intellectual side. There is no stimulus like rubbing shoulders with other students who have like interests and aspirations. One also gains knowledge of the world and of human nature at school, which cannot be obtained at home.

Private schools are not, in my judgment, equal to public schools, for the reason that the pupils in the former belong to but one grade of society. I believe that a boy should mix freely with other boys, and not be too restricted in his associations. The public school represents the world in little, and it is

the best training for the great world we all have to live and work in. The pupils show a certain manly vigor and democratic spirit which can only be obtained by mixing with boys of all ages and degrees. The subject of going to school will be dealt with later.

But, whatever the school, the system, discipline, and stimulus have a beneficial effect. In the domestic circle the child soon quotes his teacher as an oracle, and marvels at his attainments.

> —"And still the wonder grew,
> That one small head could carry all he knew."

But the parent can supplement the teachers' labors if he cannot supersede them, and open the boy's mind to things not supplied in the school course. I have noticed that the very rarity of the father's presence causes what he says or does to have greater influence than the mother's constant urging. On the other hand, improper home training may neutralize the school instruction. If the child hears bad English spoken at home, and sees its parents eat with their knives, it will surely imitate them.

Fortunate is the boy or girl who is brought up in a real "Home," with sisters and brothers and playmates of both sexes. Nothing tends more to breed selfishness than to be an only child. The free intercourse of girls and boys in the family, as in the school, exerts a bracing effect on both sexes. Jean Paul Richter said it is even better for girls than for boys. In such a home there are healthful vents for animal spirits and youthful excitement. Books and pictures should abound, though the talk need not be too literary, so that young folks may absorb knowledge

through their skins. James Russell Lowell, though a careless student at college, lived in an atmosphere of culture and "breathed it in."

Experienced teachers can tell at once whether pupils receive proper home training. Where books and pictures and magazines abound, and the talk is not all about petty trifles and gossip, children's minds expand. Where the reverse is the case, they become mentally and morally stunted.

Jean Paul Richter notes at what an early age children can be treated as rational beings. Companionship with adults has a wonderful effect upon them. If a group of boys and girls start alone on a walk, they are almost sure to squabble about something, whereas they will be perfectly happy with their elders. Where there is not too much difference of age among the members of a family, children can be made true companions. Variety of taste can be cultivated, and music, art, elocution and literature will all have their votaries.

Talk freely to your children at table, and keep in touch with their feelings and interests. Almost any topic can be made interesting to the young, if it is not dragged in by the neck and ears, like the tutor's discourses in "Sandford and Merton," and made the subject of a sermon or a lecture. In the street, on the ferryboat or steam-car, or when walking through woods or by the seashore, seize the moment of excited curiosity to supply food for thought and for information. It is enough to set children thinking; you touch the imagination, and they do the rest. Who can describe the vivid impressions which the panorama of life creates in the mind of the ordinary

child? The picturesque record of the daily journals—earthquakes, shipwrecks, conflagrations, and all the "moving accidents by flood and field"—interest every child, because they are new, but still more because they are true. Every girl or boy prefers a story that is "really so," just as the Indian students at Hampton take a deep interest in history, but will not listen to fiction; and such incidents as the sinking of the *Elbe* or the *Maine*, the Johnstown flood, or the Columbian Naval Parade, appeal to the youthful imagination more than the greatest events of the past or the most romantic tale.

When my children repeated the facts they had learned in this way to their playmates, the latter expressed great surprise, and said: "*Our* papa never reads the paper out loud or tells us anything." Many fathers are too inert or lazy to do their duty; and hence the triviality and flatness of the table-talk in many homes.

A "New Woman" writes in defence of American mothers, and with keen irony points out the deficiencies of modern fathers:

"One might wonder, should there be examples of great paternal manliness perpetually before our boys, if there might not be an elevation of their ideals; if, mayhap, they were not fed at table upon moral meat that nourishes the importance of money-getting above aught else, upon conversation that smacks of the gains of base-ball teams, or upon the toothsome prospect of possibly "licking" England. One wonders if between meals and business hours fathers might not plan something for the boys, so that their energies could be harmlessly employed. Might not fathers

select for and read with boys that 'good reading' so much deplored when left undone? One almost wonders why boys cannot be refined into fathers, as a short cut to a very desirable goal."

At Rugby, famous in "Tom Brown's Schooldays," the boys are required to read the newspapers, and a recent examination paper contained questions about the Armenian question, Cuba, the Congo, Madagascar, the race for the American Cup, and other matters of current interest. The Rev. E. E. Hale says his mother read the whole of the Waverley novels to each of his brothers and sisters after they reached a certain age.

The most vivid impressions of my childhood were created by the surging life of the city streets, the awful dignity of the New York "cop," the shocking scenes at nearby slaughter-houses open to every passer-by, the walks to High Bridge, Greenwood Cemetery and the Elysian Fields, the circus posters on fence and wall, the excitement and thrill of great conflagrations; later the street parades to celebrate the laying of the Atlantic cable and the visit of Kossuth, the arrival of the monster Great Eastern, the great war-meetings at Union Square and Cooper Institute where I heard Wendell Phillips, Beecher, Charles Sumner, Curtis, Fred Douglas and Garrison speak; and last, but not least, the regiments marching down Broadway, and the anxious crowds around the bulletins, the thrilling cry of "Extra!" after some deadly battle, the rejoicing over the victories, the terror and disgrace of the "draft riots," the tragedy of Lincoln's assassination, and the painful spectacle of the fragments of battalions, with their tattered flags,

returning home. Such sights and scenes stamped themselves upon my mind in a manner never to be effaced.

So, in my school experience, three incidents outweigh in vividness all the tedious six years' instruction: the lectures upon Pompeii, by the late James W. Gerard; an account of "bleeding Kansas," by another trustee, who showed a gigantic ear of corn with its many rows of grain, from that fruitful State; and lastly, a glowing sketch of the inventor of the modern locomotive, by our principal, David B. Scott, which led scores of his hearers to read Smiles' admirable "Life of Stephenson," and thus opened up a wide field of interest.

Great use may be made of walks amid fine scenery, or to famous places like West Point, Stony Point, Fort Lafayette, Old Point Comfort, or the scene of the Hamilton-Burr duel, or other local historic scenes to be found everywhere if you take the trouble to look for them. I never feel so much interest in history as when standing on some famous site. Instruction and pleasure can be combined in such excursions.

Most educated persons seem to be half blind. How few of them are keen observers of every-day things. Sherlock Holmes has showed us all our lack of perception. I believe in developing every child's capacity to see straight and true. Practice in drawing is a great aid to this. You never discover that you don't see an object correctly till you try to sketch it. Any one who can learn to write can be taught to draw.

Richter says we should continually ask children,

"Why?" The teacher's queries will find more open ears than his answers. Dr. Arnold ever sought to make his Rugby boys find out things for themselves, and rarely told them what they wanted to know. Make a channel for the child's vital force, which is wasted in pranks and mischief, and it will quickly follow your lead. An active child will soon tire of climbing stairs, but the steepest hill will not weary if he is in search of some interesting object.

Most children have an insatiable curiosity, a hunger to know about every-day things. It is said a child learns more in the first five years of life than ever afterward. I would rather take a party of children to visit a place of interest than an average adult. How fresh and lively their interest! How quick and accurate their observation, and how receptive their minds, like wax to retain impressions! In comparison, older folks seem to be "thickly padded with stupidity," to use George Eliot's phrase.

Children are wayward, lazy, and selfish, but they have generous instincts and a keen sense of right. They are the best companions and the warmest friends. One can easily understand why Froebel and Pestalozzi gave their lives to children.

John Stuart Mill, who was the subject of an educational experiment made by his father and Bentham, the famous economist, said that his father's idea was to make children understand one thing thoroughly, and he himself believed this not only to be a good exercise for the mind, but to create in them a standard by which to judge of their knowledge of other subjects. He did not like things to be made too easy or too agreeable to children. "The plums should

not be picked out for them, or it is very doubtful whether they will ever be at the trouble of learning what is less pleasant." For childhood the art is to apportion the difficulties to the age, but he pointed out that in life there is no such adaptation. Life must be a struggle, and children should learn to overcome difficulties.

A striking example of the folly of attempting to mould children's characters after a fixed and arbitrary plan was shown in the case of Mr. Day, author of "Sandford and Merton," who educated two girls from infancy the same as boys, with most laughable results, as nature would out, and when forbidden the pleasure of dolls they took to petting and nursing rabbits.

CHAPTER V.

MORAL TRAINING.

Cultivate Ideals in the Young—Develop Grace and Courtesy —Influence of Example—Home Discipline—Physical Courage— Excessive Indulgence—Prudery in Parents.

WHAT are your son's powers to resist evil? Has his bark a rudder and an anchor? Under what flag does he sail? The keenest intellect avails little without principle to guide it. Have you left his moral training to immature Sunday-school teachers and domestic servants? What have you done to counteract in his mind the spirit of speculation, gambling, materialism and corruption that prevails everywhere?

Froude, the historian, says of his early training: "We were told that our sole business in life is to work and to make an honorable position for ourselves." His spiritual instructions did not go beyond the catechism. This, I fancy, is the rule in too many families, and hence there is a lack of elevating ideals, which is a detriment to the development of high character. To create a lofty spirit in a boy, keep him in touch with noble thoughts and noble deeds.

Commodore Schley said that he was impelled to go to the rescue of Lieutenant Greely in the Arctic regions by the recollection of some verses of poetry which he *had read in childhood*. Heroism is contagious, and

the actions of brave men and women find imitators in every age.

Again, teach a boy never to do anything mean, cruel, or unmanly. When I had a Mission School class of young fellows, who mostly worked at trades, I used to sum up all my teaching by saying: "Don't be a coward or a sneak." *Trilby's* theory of life was a very practical one: "To try to be good, always to think of other people before one's self, and never to tell lies or be afraid."

Some children are so repressed and "bottled up," that when the cork is extracted there is an explosion, or possibly only lees will be found. The right conception of training is made clear when I tend my garden vines and observe how gratefully they climb toward the light. All healthy minds naturally seek truth.

Again, strive to develop the graces of the body, and teach ease and self-command, which are the basis of good manners. Athletics help to this end, and so does dancing. They carry the gawky boy or girl quickly through the hobbledehoy age, and confer social ease and freedom. Good address and the art of putting one's best foot forward are invaluable helps in every calling, and usually bring honor and fortune to those who possess them.

We have much to learn from the Japanese and other Orientals in deference and consideration, especially toward the old. In such matters example is better than precept. In New York we are suffering from "elevated railroad rush," and in the constant hurry and scramble we crowd the weak, and ignore *good manners.*

If children are allowed to answer back and say, "I won't," and if weak parents give up everything to them, both must suffer the consequence. A certain boy of my acquaintance used to take the morning paper and read it first. His father said: "If I allow that, you will grow up selfish, but here is part of the paper"; which seemed a fair compromise.

If we would build up true manhood in others, we must exemplify genuine manhood. If we would correct bad habits in others, we must be sure those habits are not a part of our own make-up. "If we would train up children in the way they should go, it is a good idea to skirmish around a little in that direction ourselves."

Robert Louis Stevenson, in "Weir of Hermiston," well illustrates the contagion of example: "The atmosphere of his father's industry was the best of Archie's education; even though it repelled, it stimulated him."

The Rev. Dr. Parkhurst, in discussing "Child Training," says many familiar things in a pointed way. "The nursery means more than the college, because it is initiative. It is easier to make people bright than it is to make them sound, yet a sound brain and an unsound life are incompatible. To learn to obey is the hardest, yet the most valuable lesson for a child. Love cannot abrogate law, and if our homes cannot teach children to respect authority there will soon be no authority in church or state worth respecting."

Ex-Warden A. A. Brush, of Sing Sing, declares that lack of family discipline, and parental indulgence leading to insubordination and deception by chil-

dren, are the chief causes of crime. Family training is the most important aid to virtue. We must instil obedience in the young, and develop character to resist temptation. Family training should be seconded by school and church discipline.

Yet home discipline need not be severe. A New York merchant remarked: "The most trustworthy boys and men I have known have not been subject to strict family discipline, but were those who had learned self-control. When a father has taught his boy to guide himself by his reason and his conscience, he has accomplished a high result."

A prominent lawyer observes: "It is an egregious error to suppose that education should be limited to heads and hands. Teach children a proper appreciation of sentiment, and you will find their principles will take care of themselves."

While study should not be made so irksome as to repel, neither should it be made too easy. The child should be spurred on to overcome difficulties. A healthy mind will prefer this. Rather than be coddled and helped over every hedge and ditch, it will scramble across in its own way.

The Bishop of Manchester, like Macaulay, objected to giving prizes in schools, because "the reward is too immediate, and success in life does not come so promptly." The boy or girl should be led to study and improve themselves, not for the rewards or praise, but from a sense of duty. This will prepare them to act rightly later on, when they meet with criticism and neglect instead of appreciation. Freeman, the historian, failed to win a prize in history while at Oxford. But the disappointment only stimulated

him to deeper and more diligent investigation, and thus, in after-life, he came to look upon this failure as a piece of good fortune. In a sense we are indebted to Freeman's rejected essay for his great "History of the Norman Conquest." R. W. Gilder, editor of *The Century* magazine, says that nursing and coddling are bad for literary beginners, and that early failure fosters self-reliance and ability to stand alone.

A writer remarks: "We must assiduously improve these early years for the child, so that it may learn after nature's method, more as a series of pleasant surprises than as tearful tasks. By this method Mozart became a musician at seven, Giotto painted sheep at six, Linnæus was a botanist at eight, and Agassiz a naturalist at nine. The best of all schools is to be found in the best homes, while the teachers whose work longest endures are the parents themselves."

The ideal teacher stimulates the pupil to think and act for himself. Such a teacher strives ever to efface himself and, to quote a French instructor, "to become useless to his class."

Robert Louis Stevenson says: "Curiosity and interest are the things in the world that are most immediately and certainly rewarded." Therefore cultivate these faculties in the young.

Miss Caroline LeRow remarks that habits of neatness should be taught at home. Littering the floor with bits of paper or pencil-shavings; scattering crumbs; leaving greasy traces upon walls, furniture, and books; recklessly using ink, chalk, and blackboard dusters—in nothing does the home training of

the child show itself more plainly than in these things.

It is far better for a child to show high spirits and a love of mischief than to be a prig or a weakling. School principal Boyer says, a boy who never gets into scrapes is a sick boy. Frederick Robertson could not bear to think that his son was afraid of anything, and so must every parent feel. The boy who cannot defend himself when pushed to the wall lacks the first elements of manliness. I once knew a mother who kept her boy away from a public school for fear he might fight with other boys. When he came home with a bruised face she felt very badly. But later on when he was the victor, she was as proud and happy as any mother could be.

Admiration for physical courage is universal. The heroine of a certain novel had a lover of fragile physique who failed to defend her against the insults of a gang of roughs. He said he was overmatched and that it was no use to attack them. But much as she admired his mental traits, she felt that he *ought* to have assailed the ruffians, even if killed in her defense, and so her love for him cooled.

"Tom Brown's School Days" shows how a boy with many good qualities, but with strong animal spirits and a love of mischief, can get into scrapes and acquire bad habits which will spoil his whole future. It also shows how such faults may be corrected by inspiring the boy with higher ideals and giving him tasks which require self-sacrifice and devotion to duty. Charles Kingsley heard English officers at Aldershot lament that they had not read "Tom

Brown" in early life, as they might have become quite different men. Every boy should read it.

Daniel Webster was an example of a large, generous nature spoiled by lavish gifts, which in time he grew to accept with a certain royal condescension. Mr. Lodge, his latest biographer, ascribes his carelessness in relation to money-matters to his early habit of being constantly in debt, and his accepting as a matter of course the sacrifices of his father and brother to help him get a start in life: If Webster had retained more of the lofty Puritan spirit of his ancestors, he would not later have sacrificed principle to policy in the vain hope of winning the Presidency.

CHAPTER VI.

HOME LIFE OF FAMOUS PERSONS.

Miss Frances E. Willard—Charles Kingsley—Ruskin—Wendell Phillips and Roundell Palmer.

It is interesting to study the lives of famous men and women, and observe how they were brought up, or how they trained their own children.

Miss Frances E. Willard insists that "there is no teacher and no school that can compare with the companionship of large-minded and loving-hearted home-folks. Forever and a day it will be delightful to me to remember that my dear mother taught me A, B, C. She was not in the least bit of a hurry about it either. She let me run wild, playing the same games that my brother did, and I was given over to the big out-doors, until at last I fairly cried for my primer."

Regarding her religious training, she says: "Father and mother did not teach us creeds; I never saw a catechism until I was emerging from my teens. We read the Gospels, and sang the dear old hymns hallowed by generations of reverence and affection. I think it was the hymns which did the most for me, for I had a hardy mind, and wondered how we knew that a book had come to us from God, and used to ask my mother if she could tell me who had seen it handed down, and whether it was fastened to Heaven by a gold chain? She never said that I was naughty,

but would take me on her knee and talk to me about the wonders of the world around us, and give charming little lectures on natural theology."

Charles Kingsley's home life was an ideal one. He played cards and other games with his children, partly as a mental rest, partly to keep in touch with them, and he was always their favorite companion, and, as his son described him, "Our best and truest friend." He made the woods and fields their study and inspired them with a love of nature. They handled toads, frogs, snakes, and beetles, everything except spiders, without fear or disgust.

An atmosphere of joyousness pervaded the house. "I wonder if there is so much laughing in any other house in England," he once said. Sunday in particular was the brightest day in the week. He never scolded or treated his children harshly. Punishment was scarcely known. "Lying," he said, "is half the time caused by the fear of punishment." He never chided a child hastily, so as to tempt him in his confusion to prevaricate, or harbored mean suspicions about any one. He taught his children to dread wrong-doing, not its penalty. He laid down a few broad and distinct rules of conduct, and tried to create in his children a sense of personal freedom and perfect confidence in their parents. His knowledge of physiology taught him to ascribe weariness at lessons, and sudden fits of temper or obstinacy, to physical causes or to temporary depression, and not to treat them as moral delinquencies.

In contrast with this beautiful domestic picture, how sadly repressed and artificial was the home life and early training of John Stuart Mill, a sensitive,

poetic nature, drilled like an automaton by his stern father, and never enjoying any fun or frolic. He remarked rather plaintively in after-life: "I never was a boy, never played at cricket. It is better to let nature have her own way."

Lord Brougham was a grave, sad little boy, whose chief pleasure at play was to act scenes in law-courts and be an imaginary Lord Chancellor, but he made up for it later by his college pranks.

Wendell Phillips' parents were rich and influential, yet his father made this rule for his children: "Ask no man to do for you anything that you are not able and willing to do yourself." His son claimed in later life that there was hardly any kind of ordinary trade or manual labor used in New England at which he had not done a day's work.

Roundell Palmer, the great jurist, was a fair sample of English training. He and his brother began Latin under their father at five, and Greek at six. At nine they had made a good start in Virgil and Horace, in prose and verse translation, and had begun the Greek Testament. They also read Shakespeare, Milton, and other English classics. They had the run of a good library, and their faculty of observation was strengthened by out-door study of birds and animals. The plates of Harris's "British Lepidoptera" lured them on to the study of entomology. As a result of this drill and cultivation, they made rapid progress at school and college.

John Ruskin's child-life was a period of discipline and torment. His parents regarded him as a sacred trust. Their intense affection was never outwardly expressed, and both treated him like an automaton.

He had no playthings. If he cried, disobeyed or fell, he was punished. His food was the simplest. To curb his "animal appetite" a single grape or currant was all that was allowed him." For a wonder books were not denied him. Scott, Homer and Byron were read to him on week-days, and on Sundays the Bible, "Pilgrim's Progress" and "Robinson Crusoe" (!), and he was rigidly examined in Bible lore. He found his sole enjoyment in studying the carpet pattern, a bunch of keys, and the filling of the water-carts across the way. He early composed in prose and verse, and at seven wrote a story modelled after "Harry and Lucy."

Thus restricted and suppressed by a narrow Evangelicalism, the imaginative soul and great heart of Ruskin grew like a flower in a cave. What saved him from rebellion or degeneration was the yearly driving-tours his father made through England, Scotland and Wales, where he revelled in the beauty of the scenery, and in visits to many fine mansions and old castles. He never went to school, but had private tutors to prepare him for Oxford, where he took high honors. Could anything be more ill-advised than such training, whose influence may be readily traced both in Ruskin's life and writings?

CHAPTER VII.

THE PENALTY OF PROSPERITY.

How Rich Men's Sons are Spoiled—How to Counteract Luxury—Practical Teaching Essential for Every One—A Suggestive Advertisement.

WILLIAM C. RALSTON, the California millionaire, recognizing that he had neither time nor capacity for training his sons, gave them in charge of a Unitarian clergyman, with the injunction that they should have wholesome discipline, should be taught the value of money, and to respect labor. He wanted to educate his boys on business principles by a well-paid and responsible agent, but he could not understand the educational value of a quiet, unostentatious home, where love dwells and is the great motive power. How many rich men have found to their sorrow that their sons and daughters must be sent away from home to be properly trained?

Prosperity, as all history shows, ever tends to enervate. A boy or girl is "spoiled," like fruit kept in too warm a room. To make mental and moral muscle, one must endure rigor and privation. Truly fortunate are the children who are not choked by the silver spoon in their mouths, or smothered in the luxury which surrounds them. It is a curious indication of the effect of luxury on children, that a modern board-

ing-schoolmastes urges rich men to send him their sons at eight years of age.

An expert teacher once asked another how many promising sons of wealthy men he knew. He answered: "Not one." We must pay the price of prosperity. Self-made men boast of overcoming difficulties, but a youth born to the purple, who succeeds in spite of his surroundings, deserves ten times more credit than one who has to work from necessity.

Next to moral and religious training, a broad, liberal culture is the best antidote for the temptations and weaknesses fostered by luxury. Contact with the world, which compels a youth to stand on his own feet and trust in himself, is also a splendid discipline (*vide* Kipling's "Captains Courageous"). I have asked many young men born to luxury how they escaped the sirens' spell, and they all answered that, like Orpheus, they rose above temptation and did not merely try to shun it.

W. T. Harris, United States Commissioner of Education, in advocating kindergartens in the public schools, says: "The children of the newly rich are generally intrusted to governesses or servants. They are precocious and not easily managed; hence, at an early age, they become wilful and self-indulgent. The waste of this most precious element in our population is something frightful. When old enough to enter the primary school, they are beyond cure. They will not submit themselves to the school rules, and hence they are eliminated from well-regulated schools. In early manhood, the boys of this class destroy themselves by fast living."

The kindergarten furnishes activity for these pre-

cocious minds, and trains them gently into rational habits. It is not so essential to the middle class of people, who associate a great deal with their children and throw about them a good home influence.

The children of luxury and wealth are not concerned about making a living; yet it would be better if they were taught something that would make them feel independent. Many rich men's sons and daughters have suffered heart-rending humiliation and trials, because they never learned anything practical. No spectacle is more pitiable than people "in reduced circumstances" who are incapable of self-support. The following advertisement from a Montreal paper tells the story of thousands of wasted lives:

"Wanted—By an Englishman, a light situation, night-work preferred; delicate health; honest, reliable, total abstainer; *no education*, speaks French; he is the son of the private secretary of the Lord Chief Justice of England, and sadly in want of work; married. Apply ——.

What a pathetic appeal, and the gist of it all is in the "No education"! Thousands of other "gentlemen's sons" have been reduced to like straits for lack of a little practical training, and the fault is usually their own.

CHAPTER VIII.

DON'T OVERWORK THE CHILDREN.

Spencer and Huxley on Precocious Children—Dangers from Overstudy—Wholesome Play—Education Not a Porous Plaster—Nature's Methods.

HERBERT SPENCER says the brains of precocious children cease to develop after a certain age, like a plant that fails to flower; and Professor Huxley adds: "Those unhappy children who are forced to rise too early in their classes are conceited all the forenoon of their lives and stupid all the afternoon. The keenness and vitality which should have been stored up for the sharp struggle of practical existence have been washed out of them by precocious mental debauchery, by book-gluttony and lesson-bibbing. Their faculties are worn out by the strain put upon their callow brains, and they are demoralized by worthless childish triumphs before the real tasks of life begin." How many youthful lives have been sacrificed, or their prospects ruined, by the insatiable desire of parents and teachers to crowd children beyond their strength. I wish that some one, in the interest of common sense and fair play, would offer prizes to backward children, instead of encouraging the bright ones, and make better known the names of the notable men and women who were stupid in their childhood.

Remember Carlyle's words: "The richer a nature, the harder and slower its development. Two boys were once members of a class in the Edinburgh Grammar School: John, ever trim, precise, and a dux; Walter, ever slovenly, confused, and a dolt. In due time John became Baillie John, of Hunter Square, and Walter became Sir Walter Scott, of the universe. The quickest and completest of all vegetables is the cabbage."

Heine remarked of his school education that he had lived long enough to thank God he had forgotten it. What remained is something far better than mere knowledge of books or things.

Jowett was not so far wrong when he called education "the grave of the mind." Happily, as *The Nation* remarks, "the average boy and girl is tough, and may defy the experts." Bagehot chuckled over the way in which "that apple-eating animal which we call a boy" would foil his educators, and bring away from long years of wrestling with the classics little more than a firm conviction that there were such languages as Latin and Greek. To apples we may now add football and baseball and bicycles. The specialists may crowd more and more of their subjects into the curriculum of schools; the average boy simply produces new varieties of humor in the way of examination-papers, and goes on his athletic way rejoicing. It is upon the exceptionally delicate and sensitive and conscientious that high-pressure schools and bewildering multiplicity of studies work their real evil. How much of dulled interest, of nervous collapse, of utter repulsion at the sight of books, of despairing effort to keep up the pace, of vague sense of wrong

and injustice have they been responsible for! Those whom no education can harm, as none can benefit, emerge from the process uninjured, but the rush and crowding and strain are cruel to the finer natures."

Let every boy enjoy himself as much as possible and play hard in a wholesome way. Don't burden his mind with too much care; hard knocks and trials will come later on. The man who has had no fun in his youth is apt to be a prig. You can guide and direct the child's growth, but you must not try to "boost" him. When the mind is hungry, feed it, but don't create mental dyspepsia by stuffing the boy or girl like the Strasburg geese, to make intellectual *pâté de foie gras.*

If a boy dislikes some special study, and you are convinced that it is not from mere whim, don't force his inclination, but let him skip it; and later on, when he finds that he is deficient in that direction, he will take it up voluntarily and soon catch up with his fellows. When will people learn that education is not a porous plaster to be clapped on a pupil's back or head, but the development of original attributes and creative force from within?

Make study so attractive in the beginning that it will seem like play, and not repel. The old method of teaching the classics caused many boys to detest Virgil and Homer all their lives. Outside of school one may take up music or a modern language, or follow some systematic course of reading; but I would not burden a child's mind with too much study. First of all see that he has health and vigor, and when he gains a taste for knowledge he will study with energy and ardor.

Encourage individuality. Each child should have his own room and a chance to cultivate personal likings and tastes. Let the boy have a snuggery to which he can bring his friends; and where he can work with a jig-saw, printing-press, magic lantern, or miniature theatre. If a boy has a taste for tinkering, supply him with tools and a place to work in. Manual dexterity is always valuable, and training the hand is the best of all training. A camera will teach a boy to use his eyes and cultivate his taste, while it will keep him out of mischief. Every boy would be better for such advantages.

The activity and waywardness of youth will, if properly directed, change into energy and force. The steam which tilts the tea-kettle lid may drive the locomotive or lift the trip-hammer. Do not be disappointed or grieved if a boy is boisterous or overenergetic. Anything is better than being a "molly coddle." A natural boy should love physical exercise and like to play hard, eat abundantly, sleep soundly, enjoy lively books, and, in short, have a zest for everything that is wholesome.

As the child gains in mental growth, teach him self-reliance. Buy him an encyclopedia, and make him look up things for himself. I once knew a boy who had been read to so much in early life that it seemed impossible to get him to study for himself. Suddenly the desire was implanted by a gift of the "Life of Robert Fulton," in which he became deeply interested. Then his father gave him an encyclopedia; and now he spends hours in studying all sorts of topics. I have held in my hand the Latin grammar which Theodore Parker bought with the

earnings from picking berries, and I can fancy his pleasure was greater in that achievement than in the after possession of a library of twelve thousand volumes.

CHAPTER IX.

PUBLIC OR PRIVATE SCHOOLS.

Home Training Deficient—Boarding-Schools, Advantages and Drawbacks—Military Drill Helpful—Class Spirit—Benefits of Public Schools—Need of Manual Training.

HARRIET MARTINEAU wrote: "No children, in any rank of life, can acquire so much book-knowledge at home as at a good school, or have their intellectual faculties so well trained and roused. I have never seen an instance of such high attainment in languages, mathematics, history or philosophy in young people taught at home, even by the best masters, as in those who have been in a good school."

Yet the very words "sent away to school" raise a doubt in the mind. Boarding-schools are a poor substitute for a good home, but their existence proves their necessity, and, while many parents send their children to such places to get rid of them, they serve a good purpose for children who have no home advantages or who live far from good day-schools.

Mr. Siglar in his school circular presents very adroitly and persuasively, the arguments in favor of sending a boy early to boarding-school. "There isn't a home in the world so good, or parents so faithful and wise, that a healthy boy had better stay in it, or with them, at eight. And the puny boy is probably puny because he is at home. It lacks facilities;

probably everything else but love; and the love is never wise. . . . There is no other way for a boy to be happy and comfortable perpetually, but to live with other boys of his age, the object of skilful and delicate care and judicious letting-alone. They afford one another variety. Mirror-like, they reflect one another. They teach one another. They weigh themselves, a most useful facility. There is a public opinion among them, a good one. They restrain one another; cure one another of faults that at home were incurable. Boys among boys are ashamed to be unmanly."

Horace D. Taft denies that boarding-schools are designed solely for backward or wayward children, and says they are becoming a necessity, especially with the sons of the well-to-do residents of large cities, to counteract certain growing tendencies of modern life. Among their advantages are the simple fare; the regular hours for sleep, study, and exercise; a sense of responsibility for acts and commissions; the habit of prompt obedience; freedom from social and petty distractions; and protection from undesirable companionship. Then there is the discipline of athletics, the moral benefit of contact with older and superior boys, and the influence of school loyalty or patriotism. A serious drawback in such schools is the class spirit fostered by the absence of boys of moderate means, who go to the public school. He thinks this un-American and suggests that such schools should provide free scholarships for boys of character and talent to leaven the mass.

Boarding-schools of a denominational type are open to objection from their narrowing influence and

undue restraint, which makes hypocrites of some boys and rebels of others. I should send high-spirited or turbulent boys to schools where the pupils are regularly drilled by a competent instructor. Military drill makes a boy stand straight and obey promptly. He takes pride in his uniform, learns to respect his superiors, and to be alert and quick to respond. No greater contrast could be found than that between the fine bearing of the pupils under military rule, and the slouchy, flabby boys in ordinary schools. It is inspiring to see a thousand public-school boys at their morning exercises salute the Stars and Stripes and vow allegiance to their country.

At the Hampton, Va., Normal School, General Armstrong found that the military discipline inspired self-respect and *esprit de corps* among the students. The graduates of West Point and Annapolis are always gentlemen.

Regarding public schools, Mr. Robert Waters has favored me with the following interesting communication: "I was for nearly twenty years a teacher in private schools and used to look upon the public schools as a sort of treadmill, where boys and girls were crammed with facts and made to move like machines. After twelve years in the public-school service I regard them as our greatest American institution.

"The public school is really democratic. Promotions are made through merit. The banker's son and the laborer's boy sit side by side, and measure their abilities. No questions are asked concerning the status of the parents or of the scholars, and no regard is paid to anything except their personal qualities.

"The joint education of the boys and girls is beneficial, mentally and morally—for it is that of the family. The boys look upon the girls as their sisters, and the girls look upon the boys as their brothers. I never knew a single instance of direct immorality.*

"I used to think that women were not equal to men as teachers, but I was in error. In the higher mathematics and in the classics men may be superior; but for children they are not. Women have exceptional tact, skill and patience. Where men govern by force, women succeed by gentleness. I would rather a hundred times have a corps of women teachers than one of men.

"The schools I taught in Germany were better than those I knew at first in the United States; but Americans are prompt to appreciate a good thing when they see it, and I have seen with admiration how quickly our public-school teachers put into practice the best German methods. The only drawback in our public-school system is political influence in appointments. Change that, and all will be well.

"A public-school boy is likely to be a better citizen and a better man than one educated at a private school, but the latter is likely to be better trained in

* At the Purity Congress at Baltimore, B. O. Flower, editor of *The Arena*, condemned the guilty silence called modesty, which withheld the proper knowledge from children, instead of warning them of the pitfalls and dangers ahead; and Dr. Mary Wood Allen, National Purity Superintendent, W. C. T. U., in advocating co-education said: "The girl in convents or girls' schools is apt to invest young men with ideal virtues, but the glamour vanishes when she comes to compete with them in practical school life. This would be more completely the case were she permitted to associate with them on terms of frank comradeship."

technical branches. The proper plan, I think, is for the boy in ordinary circumstances to go to a commercial or trade school after finishing the public school." *

Mr. Boyer, one of the first New York principals to introduce military drill, says: "The common schools are the only agency for transforming our cosmopolitan population into American citizens. Our churches and other institutions tend to set people apart, but the public school is like a great hopper, in which Jew and Gentile, Celt and Saxon, Protestant and Catholic Slav and Teuton, are Americanized, and 'Old Glory' is the only flag that all alike will salute."

Of the public-school pupils, Prof. W. T. Harris says: "One per cent enter college, three per cent the high school and academies, and ninety-six per cent never get beyond the elementary grade." It is important, therefore, that the course of studies should be adjusted to the needs of the latter. Only eight per cent of the population enter business or the professions, while ninety-two per cent labor with their hands. As the former have schools of law, medicine, dentistry, engineering, architecture, etc., so the hand-workers should have facilities for manual training provided for them.

Professor Agassiz wished to see a technological

* The Springfield *Republican* says: "There is a great deal of ignorant criticism of what are termed the machine methods of large public schools, overlooking the fact that the habit of acting in concert and of quick obedience to the common rule is one of the great disciplinary objects of schooling in masses, not to be attained in private schools, where each pupil has individual tending, like flowers in pots."

museum in every primary school, as is common in Switzerland. Parents naturally want their children to gain all the instruction they can. If manual training were added to the course, they would make sacrifices to keep their children longer at school. Since the introduction of industrial schools in England crimes above the grade of felony have been reduced one-third; this reduction is greatest where such schools are most numerous and longest established.

CHAPTER X.

WHAT TO READ.

Books that Shape Men's Lives—Libraries and Children—How to Create a Taste for Reading—James Russell Lowell's Views—A Boy's Library—E. E. Hale and O. W. Holmes on Study—What Books to Choose—Learn to Speak and Write—Letter-Writing Good Practice—Join a Debating-Club.

WHEN a child I used to turn over volumes of the English poets and read what struck my fancy. I thus learned to know a good many authors by tasting them. In college libraries, where students can take the books down and handle them, they learn a great deal more about authors than they could by reading a few volumes. To have dipped into Homer, Plato, Dante, Darwin, or other great writers creates an interest which may lead to careful reading later on. This is one of the permanent delights of haunting second-hand book-stalls.

The value of this habit of familiarity is recognized by the best librarians, and the books in most demand are made accessible to readers, who make their own selections from them.

In "Middlemarch" the boy Lydgate, standing on a ladder to get at the top shelf in a library, opened by chance a book on anatomy. His attention was aroused by a picture of the valves of the heart; from that moment his sole purpose was to study medicine.

Many other lives have been shaped by equally trifling circumstances.

When my father was a student at Dartmouth he bought a copy of Todd's "Student's Manual," for thirty-seven cents, which impressed him very much. Several of his chums also read it with interest. Afterward, when a teacher, he loaned the book to many of his pupils, whose names are set down in the back of the book, to the number of some fifty. Who can estimate the money value of this little book?

Jean Paul Richter shows in "Levana" how easily children are impressed with lasting ideas and associations. It is therefore important to give them the best books to read.

In an address to workingmen, James Russell Lowell said: "So select your reading that it shall be to you a ladder of ascent to a higher intellectual plane. Once a man knows how to read, he may enjoy the intellectual companionship of the choicest spirits and the richest and wisest minds of all time. If you were offered a letter of introduction which would persuade Shakspeare and Milton to give you their best time and attention, you would say it was impossible. Yet that is precisely what the mere ability to read gives a man."

Political economy is called the dismal science, but it can be made of interest to every one. When people are talking about the hard times, when tramps multiply at the front door, when the farmer's wife cannot get the new dress she needs because corn and wheat bring such low prices, or when every one is talking about the government bond issue, then is the time to set the young people to reading such books as

R. R. Bowker's "Economics for the People," or Professor Ely's "Political Economy."

Charles Bradlaugh, the English radical, said: "I ascribe to Emerson's essay on 'Self-reliance' my first step in the career I have adopted. When too poor to buy a book, I copied parts of it, and now stand an example at least of a self-reliant man." *

Valuable hints in regard to selecting books for the young are given by public librarians. Dr. Poole says children must acquire a love of books during their formative period, from ten to fourteen, and they should no more be shut out from a library than from a church. They should be encouraged to take two books at a time, so as to change off from a story to a biography or book of travel or popular science. The wise librarian tempts children with picture-books, and leads them up to Mother Goose's fables, fairy lore, myths, and simple poems. Eschew books written down to the young and of too pronounced a moral, and especially stupid books of all sorts. One class of minds need wholesome, stirring, absorbing stories of action; for another class inspiring books are re-

* A symposium in *The British Weekly* on "Books which Have Influenced Me" illustrates the benefits of surrounding boys with the classics of their own tongue and of the world. The editor remarked: "Scott receives most gratitude; the Bible is prominent; Montaigne, Shakespeare and Coleridge, Carlyle, Tennyson, Emerson, Kingsley, are well mentioned. Generally the current classics and the acknowledged contemporaries hold the field. One omission, Plutarch, is singular. Can it be that that old reservoir of heroic impulse and brave example is past being a formative book? Hamerton suggested that he could not mark the influence of books upon himself very well; and that is somewhat the case with everybody."

quired, for knowledge alone cannot make character, and what children love and desire is far more vital than what they learn.

The best librarians regard the young as their most important patrons, treat them the same as their elders, and strive to make them feel at home. In the Boston Library one large room has thousands of volumes wholly for the use of the young. The long hours which I spent in the Mercantile Library were the happiest of my youth. From the bound volumes of the *London Illustrated*, I got my first impressions of contemporary history, while Leech's and Tenniel's cartoons in *Punch* gave the truest insight into English politics. The Shakespeare and Hogarth engravings were a revelation to my imagination, while I revelled in the feast of fiction, travels, biography, and history on the well-filled shelves. The librarian grumbled that any one should want *three* books in one day, but for the voracious reader, on a rainy Saturday, this was nothing. I count it a privilege also to have had the opportunity to turn over the great foreign and domestic reviews, which gave me a broad and cosmopolitan impression of the world's best literature.

Some persons object to stories like "Jack the Giant Killer," which they fancy inculcate ideas of cruelty. But children are naturally "unmoral" and are rarely influenced in that way.

It is desirable to implant in every child a taste for reading; then turn him loose to browse in a library, where he will make lifelong and unchanging friends, and spend happy hours, to be later recalled with the same delight with which Thackeray tells in his "Round-about Papers" of his boyish absorption in

Scott, Cooper and Dumas. Reading should not be made a task, neither should books be treated like sweetmeats to gorge on till they cloy the appetite, but rather like wholesome fruit to be eaten with relish as a dessert after the day's work is over.

"We get no good of being ungenerous, even to a book
And calculating profits; so much help by so much reading.
It is rather when we plunge soul-forward, headlong, into a book profound,
Impassioned by its beauty and pure salt of truth;
'Tis then we get the right good from a book."

As I have said before, the youngest child can appreciate the finest and most imaginative literature—the narrative parts of the Bible; the classic myths; "Arabian Nights' Entertainment"; Lamb's "Stories from Shakespeare," and all that is best in Scott, Cooper, Dickens, Stevenson, and Dumas.

There are books of information and books of inspiration. We get knowledge from one and stimulus from the other. Any one can study history, science, mathematics, geography, and art; but he must not neglect the masters of thought who speak to the heart and the soul. The Bible stands first of these; next come Shakespeare and the poets, and lastly the seers and prophets, Emerson, Carlyle, Ruskin; George Eliot, Victor Hugo, and Tolstoï in fiction; Martineau, Newman, Channing, Frederick Robertson, and Phillips Brooks in ethics.

The best gift to a bright boy would be a little library of such books as Plutarch's "Lives," Macaulay's "Essays," Franklin's "Autobiography," Smiles' "Self-Help" and his other books, "Little Masterpieces," issued by the Doubleday & McClure

Co., Green's "Shorter History of the English People"; some good work of travel, like Stanley's "Through the Dark Continent" or Nansen's "Farthest North"; and some book on popular science, like Mace's "History of a Mouthful of Bread" or John Burroughs' "Wake Robin." Urge him to add to this collection every year. Let him hunt the stores for books to his liking, and in a short time he will be a book-lover and a student.

Most advice about reading is too vague or too pedantic. I well recollect when a member of a boys' literary society how we were advised by a scholarly clergyman to read the old English divines and "The Correlation and Conservation of Forces," and how absurd the suggestion seemed to us. I have tried to lead my own son from one book to another as his curiosity was excited, never forcing or giving him a stupid book, but waiting for his mind to open and be ready to receive new impressions.

In a New York public school there is a collection of United States Government reports presented by a military friend. The pupils delight in studying in these documents the events of the Rebellion, and thus learn history at first hand. A boy who has been content with Oliver Optic and Alger will suddenly become absorbed in the official record of the *Monitor* or *Kearsarge* contest, or in Sherman's march to the sea, and will master their smallest details. Books of reference are also in great demand, and the standard text-books on mechanics and other branches of science have had their covers worn off by hard usage. Among the girl pupils, Ruskin is much sought for.

It is a pleasant custom in some families to select a

special topic every winter for reading, perhaps in connection with a lecture course, or to follow the Chautauqua home reading course.*

Rev. Theodore L. Cuyler, one of the most fertile and vivid authors, says he has been most influenced by "tonic writers"; Henry Drummond was stimulated by Emerson, Carlyle, Ruskin and Matthew Arnold. Tyndall says it was Emerson's books that got him out of bed and at work at 5 A.M. in his laboratory.

Of the making of books there is no end, and any one might be daunted by the vast array in libraries. But the ordinary reader need read only the best books in each department, which, Frederic Harrison says, may be comprised in a couple of hundred volumes, exclusive of fiction. Most books are of temporary interest or mere comments on other works, and it is surprising how little truly original and first-hand writing there is. Sir John Lubbock "One Hundred Best Books" could be read by an industrious student in a twelvemonth, and any person of moderate leisure might easily peruse them.

Rev. E. E. Hale says that a person who will take up some topic, and study it in detail, may in a month be in advance of any but the specialist. Books are now so cheap that any one can collect them. For one hundred and fifty dollars one may buy a library

* I should urge every earnest boy and girl who is ambitious to improve his or her mind to join the Chautauqua Home Reading Circle. It will be easy to get some friend to unite with you in forming a circle, and thus have the benefit of joint study and discussion. Write to Dr. J. H. Vincent, Buffalo, N. Y., for particulars.

sufficient for the average family. "Fifteen minutes a day," says President Eliot, "given to reading, would in thirty years make the difference between a cultivated and an uncultivated man or woman."

Oliver Wendell Holmes' advice about reading is eminently practical:

"I believe in reading, in a large proportion, by subjects rather than by authors. Some books must be read tasting, as it were, every word. Tennyson will bear that, as Milton would, as Gray would—for they tasted every word themselves, as Ude or Carême would taste a potage meant for a king or a queen. But once become familiar with a subject, so as to know what you wish to learn about it, and you can read a page as a flash of lightning reads it. Take a lesson from Houdin and his sons' practice of looking in at a shop-window, remembering all they saw. Learn to read a page in the shortest possible time, and to stand a thorough examination on its contents."

In regard to fiction, he adds:

"All these young women who pass their days and nights in reading endless story-books—novels, so-called, doubtless from their want of novelty—what are they doing but pouring water into buckets whose bottoms are so full of holes as a colander, and which would have nothing to show if Niagara had been emptied into them!"

Here is a list of the great works in fiction which every one ought to read if he can: Scott's "Ivanhoe" and "Talisman"; Dickens' "David Copperfield" and "Pickwick"; Thackeray's "Vanity Fair" and "Henry Esmond"; George Eliot's "Adam Bede" and "Romola"; Charlotte Bronte's "Jane Eyre"; Wilkie Col-

lins' "The Woman in White"; Charles Reade's "Peg Woffington" and "Never Too Late to Mend"; Dumas' "Monte Cristo"; Mrs. Craik's "John Halifax"; Victor Hugo's "Les Miserables"; Cooper's "Spy" and "Deerslayer" series; Howells' "Silas Lapham"; Blackmore's "Lorna Doone"; Stevenson's "Kidnapped" and "David Balfour"; Conan Doyle's "The White Company"; Barrie's "Little Minister." "The Princess of Thule," "The Scarlet Letter," "Uncle Tom's Cabin," "Don Quixote," "Gil Blas," "Debit and Credit," "Quits," "Romance of a Poor Young Man," and Tolstoï's "War and Peace."

When I was an office-boy, my employer, an old-time merchant, had a large collection of orations and speeches by Daniel Webster, John Quincy Adams, and their contemporaries, which was a constant delight to me. Later on I read the Lincoln-Douglas debate, and heard the great speeches of Wendell Phillips, Charles Sumner, and the other Anti-Slavery orators. I would not exchange this experience for any second-hand acquaintance with Demosthenes and Cicero which might have disciplined my mind, but which could never fill my soul as these did with patriotic fervor and enthusiasm for humanity. The young American who is more moved by visiting the site of Marathon or Waterloo than by "The rude bridge that arched the flood, where once the embattled farmers stood and fired the shot heard round the world," or by Gettysburg and Appomatox, is surely lacking in true manhood.

LEARN TO SPEAK AND TO WRITE.

Every boy should join a debating-club, as I have said before, to learn to think on his feet and express himself clearly and forcibly. It is a good discipline to listen to the discussion of public questions and to weigh and consider opposing arguments. It is well also to have to defend one's opinions and to show the fallacy of opposing arguments. Most young people inherit their opinions on religious, political, and social questions, and rarely hear them controverted. They should be taught the reasons why their parents hold certain views, and not take things for granted, or be content with assuming that every one who differs with them must be a fool. It was in the keen debates in the Western country store, on long winter nights, that Lincoln sharpened his mind and gathered knowledge, and this was the training-school for scores of other famous Americans.

It would be well for a boy to hear able lawyers argue some important case in court. He should also attend public meetings and churches of other denominations than his own, so as to listen to the great orators and divines of his time. Almost any boy can find opportunities to hear eloquent public speakers discuss the issues of the day.

Many persons fancy that the oratorical art is a mere accomplishment, unless one aims to be a lawyer or clergyman. But in every occupation it is an advantage to talk well. Not only is it the salesman's chief resource, but in every walk in life it is an advantage to be able to state one's views clearly and succinctly. The chief end of speech is to persuade, and even the

greatest natural gifts should be cultivated to the highest degree.

Again, to be able to write with precision, with clearness, and with convincing power will always be an aid in any pursuit. Every business man has to write letters, draw contracts, and negotiate by letter, and if he cannot express himself well he is at a disadvantage. Therefore the time spent in the study of the art of expression, both with the voice and with the pen, will be found to yield rich returns.

De Quincey said the best writing of his day was to be found in the familiar letters of cultivated English women. Children should be encouraged to write freely to their relatives and friends. No better practice, both in observation and expression, could be devised. Such a correspondence, which I began at thirteen, with a dear old Quaker aunt living in the country, and which I kept up till manhood, was at once a delight and an admirable training; and a correspondence which I maintained with a relative in the Union army was also of inestimable advantage.

One of the refinements of civilization is the art of writing a short note. Voltaire possessed this happy faculty in the highest degree, and Parton remarks in his biography that even his brief invitations to a neighbor to call and sup with him were models of wit and aptness of phrase.

CHAPTER XI.

VALUE OF AGREEABLE MANNERS.

Courtesy Oils the Machinery of Life—The Art of Making Friends—Cultivate the Social Faculty—Men with a Genius for Friendship—Franklin on Disputation—Examples of Urbane Men and the Reverse—Shyness a Fault—Army and Navy Officers Always Polite—Every One Helps the Genial Man.

THE elements of success are everywhere the same: patience and persistency, exact knowledge, a trained judgment, and agreeable manners. This last possession is not sufficiently regarded.

The artist Whistler, of "Trilby" fame, wrote an essay on "The Pleasant Art of Making Enemies," an art very popular with proud and irritable persons, but which should be studiously neglected by all others. Friction is an obstacle in life as in machinery. Suavity and courtesy are proofs both of good breeding and of worldly wisdom. The contentious man is his own worst foe. I might cite scores of examples of the value of agreeable manners. Chauncey Depew is always courteous and accessible. The late Henry Monett, who rose from messenger-boy to be General Passenger Agent of the New York Central, won hosts of friends because he was never too busy to be good-natured. It was said of Dr. Fordyce Barker that whoever sat next him at dinner became his admirer for life. Simon Cameron was ever conciliatory and preferred going around an obstacle to

running against it. Mr. Kinsella, a famous Brooklyn politician, said he could not afford the luxury of hatred, and Sir John Macdonald, the Canadian statesman, said: "A public man should have no resentments." Col. Tom Scott never antagonized any one directly, and was noted for his cheerful, buoyant temper and the grace with which he could say "No." Gen. C. H. Taylor, of the Boston *Globe*, says: "I owe my success to being good-humored with every one." Gambetta won men to his support by a smile, a *bon mot*, or a good story. Lord Beaconsfield, when asked why Queen Victoria showed him so much favor, replied: "Well—er—the fact is, I—er—never contradict, and—er—I sometimes—er—forget."

The art of making friends should therefore be sedulously cultivated. Every one appreciates the value of acquaintance. Men join clubs, lodges, and other associations, purely for the sake of making valuable connections. But one cannot expect to win confidence and respect by merely hobnobbing with people. Even dissipated men respect sobriety, and no one would prefer a lawyer, doctor, architect or salesman who constantly frequented billiard rooms or saloons.

A large circle of acquaintances is the best capital in life. One never knows when a friend may do you a service by a word of commendation or introduction, and it ennobles the nature of man to be able to reciprocate it. Scores of men gained their first start through the happy faculty of making friends. No fairy gift is more valuable, excepting the faculty for hard work.

Yet this talent need not imply offensive assurance. A Chicago merchant, who did not pronounce

his words very clearly, remarked to a publisher: "A man who has health and strength and *God* on his side is sure to succeed." "These are my sentiments to a T," said the other; "a man with health and strength and *gall* on his side is sure to succeed every time." But this interpretation of the maxim shortly afterward brought the enterprising publisher to prison. The common impression that "cheek" is necessary to success is a mistake. Quiet dignity and ease of manner are far better. The man of pleasant address, who thoroughly understands his business, always makes the best impression. Therefore, cultivate the social faculty. Don't live aloof from your fellows, but by associating with them acquire ease and tact.

It is never wise to associate with your inferiors, but every one should try to meet superior men and women and profit by their companionship. He should join his trade organization or professional club, and thus profit by contact with his rivals. Such associations test a man's quality, rub off the angles and knotty points, and take the conceit out of him.

Some men are born with such winning ways that they bind others to them "with hooks of steel." A striking instance of this happy gift was seen in MacGahan, the newspaper correspondent, who performed such feats in the Russo-Turkish War. Though quiet, reserved, and undemonstrative, and in no sense a "jolly fellow," he seemed at ease with every one, from the Grand Duke Nicholas down to the private soldiers, and he was idolized by Skobeleff, Archibald Forbes, Villers, and hundreds of other men. In short, he had a genius for friendship. Mr. Holley, the engineer

and improver of the Bessemer steel industry, had the same happy gift, and his bust in Washington Square, New York, is a proof of the love and esteem which he inspired. Charles Lamb, Arnold Toynbee, Lincoln, and General Armstrong, founder of the Hampton School, all possessed this lovable quality to a high degree.

Every young man should read Franklin's "Autobiography," and note how that astute philosopher and diplomat gave up being positive and self-assertive. In youth he was pert, aggressive, and conceited, but he learned wisdom by observation and mastered these defects. Instead of arguing aggressively, he studied how to persuade and win men to his side, yet without truckling to their prejudices or yielding his own convictions. Thus he kept friends even with strong opponents, and won their respect for his sturdy independence. It is no wonder that his judgment was so valued and that his services were sought by all classes, and finally by the public in the most varied and responsible positions. He was a model American and a citizen of the world.

Lord Dufferin ascribes his success to mastery of foreign languages, skill in public speaking, and to *careful attention to manner*. Andrew Jackson, despite his rough experience in early life, was remarkable for his courtly bearing. William M. Evarts, when Secretary of State, always tried to see everybody who called: "I never make any appointments. If any one calls and asks me to fix a time when he can see me for half an hour, I say, 'Oh, take it now.' The result is that I probably get through in five minutes." Mr. Evarts seemed never to be worried by interruptions. In

England the making of appointments often consumes more time than the business transacted.

Dr. Evans, the famous American dentist in Paris, won his way to success largely through his social qualities. Through friendship with Louis Napoleon he gained most of the crowned heads of Europe as his patients. Nelson had winning manners and an inimitable charm due to his enthusiasm and fresh personality, which reflected his generous and kindly nature. Daniel Lamont, Secretary of War under President Cleveland, and ex-Postmaster-General James owed their rapid advancement largely to their tact and pleasant bearing. On the other hand, Abram S. Hewitt, when Mayor of New York, made every one uncomfortable by his chronic irritability, and did not accomplish half so much as Mayor Strong, who, though a positive man, and subject to gout, had a genial manner toward visitors.

President Adams, formerly of Cornell, in his first annual address, laid stress, first, on the development of the mind; second, on the development of character; and third, on the development of manner. "I do not mean here exactly what would be meant by politeness; but I mean that indescribable something which attaches itself to certain people, not so much because of what they can do as because of what they seem to be to you; because of their manner toward you and toward those with whom they associate. I would not attach so great importance to the development of manner as to the development of strength of mind. At the same time strength of mind is practically useless unless it is accompanied with such manners as to make it effective upon those with whom we associate."

A writer in *The Outlook* remarks that the graduates of West Point and Annapolis are distinguished the world over for politeness and consideration for the feelings and rights of others. In club smoking-rooms, in the field, or in the ball-room, they show at its best what American manhood is capable of, when regulated by discipline and polished by habit.

John Quincy Adams' lack of urbanity alienated friends and created enemies. It greatly hampered his influence, made him feel isolated, and caused him to be neglected in his old age. His irascibility was partly a matter of temperament, and partly caused by his too precocious and isolated youth. His early letters and diary are solemnly mature and full of moralizing. He seems never to have known fun or frolic. Freeman, the historian, who was taught by a tutor, ascribed his shyness, awkwardness, and impatience of views differing from his own to the lack of intercourse with lads of his own age. He thought, however, that the advantages of freedom and leisure to follow studies of his own choice balanced these drawbacks. Probably if he had associated more with other students, he would not have been so arrogant and unpopular in later years.

Tyndall and Huxley were both social beings. They early joined the Red Lion Club, which gave feasts of Spartan simplicity with extremely unconventional orations and queer songs, and which were in direct contrast to the official banquets of the British Association, with their high tables and "butterboat" speeches. Prince Lobanoff-Rostovosky, the great Russian statesman, who was of pure Slav blood and of great independence of character, owed his success

largely to his extreme affability toward the Czar, his colleagues, and his subordinates. Yet when, ambassador at Vienna, he received a telegram from the Grand Duke ordering him to prepare rooms at the embassy, he promptly answered, "Your Highness must go to a hotel."

Agreeable manners are especially helpful in the professions. They are indispensable to the family doctor. A great English physician when asked what a young medical man should read replied, "Don Quixote," thereby showing how important he regarded a knowledge of human nature to the practitioner. A famous New York physician told his class of students to be specially careful not to wear creaky shoes. A doctor's visit and presence should be a benison to his patient.

William E. Russell, who was nominated for Governor of Massachusetts at thirty-one, and after two failures was elected three times, owed his success largely to his social qualities. His speeches were logical, sober, and solid, but among the people he was genial and warm. He not only attracted men but made them his allies. The man with whom he shook hands believed that Russell had come to town especially to see him. While Governor he gave time to rowing, riding, shooting, and tennis, and thus kept in touch with young men. He won the commendation of elder men by the excellence of his appointments and by his masterly discussion of public topics.

A young New York business man made himself valuable to his employers in a peculiar way. His firm had important social relations with many out-of-town customers who were frequent visitors at the

office. One day the young man was called upon to attend to such a visitor. He did it with such tact and ability that he was relieved from other work that he might devote himself exclusively to the social end of the firm's business. His salary has been raised several times, and his services are now considered indispensable.

Charles Lanier, in writing of "The Working of a Bank," in *Scribner's Magazine*, lays special stress upon the value in business of personal and social qualities. "We contract a habit of buying our paper from some particular newsboy simply because his cheery voice, red cheeks, and engaging quickness have attracted us—maybe unconsciously on either side. We find it far easier to withstand a book agent or drummer or advertising solicitor if he be bilious looking, diffident, or awkward, if he possess no spark of intrinsic interest, and if we haven't chatted with him in the casual smoking-car. In professional ranks one notices the incomparable advantage enjoyed by the physician, the lawyer, and the clergyman who has a good physique, an imposing presence, and a well-selected stock of stories. There are minute gradations of the art of bringing the personal equation to bear on one's business success, and while the banker uses only the higher and more sublimated branches, they are as necessary to him as, in a more primary form, they are to the peripatetic insurance agent."

In recommending tact and agreeable manners I do not for a moment advocate truckling to people. If you would retain the world's respect, it won't do to "eat dirt" or be "hail fellow well met" with every-

body. Washington, Jefferson, Franklin, Henry Clay, Jackson, Lincoln, Grant and Gladstone, all maintained a certain reserve, and dared to run counter to public opinion. Hamerton states that Garibaldi kept close in his tent, and was hardly seen by his soldiers. Stanley, the African explorer, held aloof not only from his men but from his officers. Yet both of these men were idolized by their followers.

Shyness is a fault, and should be overcome by associating freely with all sorts and conditions of men and women. It is often due to morbid self-esteem, and the fear of making one's self ridiculous. Easy manners come from contact with men and affairs, and must be studied, just as the young actor must learn to walk naturally on and off the stage.

CHAPTER XII.

THE COUNTRY BOY.

Effects of Environment—The Country Boy—Opportunities in Small Communities—Try the Nearest Thing First—Discussion at the Twilight Club—Climbing a Long or a Short Ladder—Famous Men Born in Small Places—Country Boys in Public Life.

To be born in a stable does not make one a horse, yet a boy's surroundings have much to do with his future. Strong natures like Lincoln flourish in any soil. Nevertheless, the boy who is to develop into a true man must, in the majority of cases, have the best nurture. Lacking this, many boys will degenerate and become failures. The world is full of derelicts drifting aimlessly about, and perhaps wrecking other and stancher craft.

Children brought up in city tenements tend to become vicious and sickly, but if transported to country homes they grow up to be strong and self-respecting men and women.

The inquiry is frequently made, Why do not boys stay on the farm? The reason is that in many places farming does not pay, and, if there are several sons in the family, there is seldom a chance for more than one to earn a living at home. The country boy goes to the district school and learns "the three R's"; he may attend a high school, but that is usually the extent of his book knowledge. If he seeks the nearest

village or small town, there are few opportunities for employment. The grocery-store will need a clerk and driver, the dry-goods dealer a few salesmen. There will be places on the railroad, in the express, insurance, and telegraph offices, and with the local newspaper, but they are ill paid and rarely lead to promotion. If there are factories they will give work to a number. The lawyer, doctor, editor, surveyor, and dentist earn a bare existence. In every community a carpenter, blacksmith, cobbler, tinsmith, and mason will find occupation most of the time. If they are intelligent and thrifty, they ought to gain a comfortable living. There are also chances for contractors to do ditching and grading, teaming, and similar work.

An eminent New York lawyer who came from a Western village said to me: "My father was a carpenter. Several of my brothers have followed trades. I tried to be a machinist and often slept on the ash-heap by the furnace. I then took up type-setting, but I hadn't enough brains to be a mechanic; so I studied law. I think the country boy has an advantage over the city boy. Most of the men in my native place who have got on were sons of mechanics or laborers, yet they went to college and are successful lawyers, doctors, merchants, and clergymen. One boy, whose father was a track-walker, ran away to attend school, and is now a leading Buffalo lawyer. Many such boys have positions in oil refineries and factories, where they earn good pay. They live in comfort, own their own homes, and lay by money. A boy who has the right stuff in him can usually get started anywhere."

Yet it is often a mistake for a young man to leave home. Like a tree, he may take a long while to get rooted in a new spot. If he has any chance near home, he had better take advantage of it until he has developed his powers and saved a little money. Then if he chooses to prospect a little, he will be able to take advantage of any opportunity that offers.

Take the first thing that offers, and, as Chauncey Depew advised, "stick and hustle" till you have made the place worth keeping or can find something better. Be a big toad in a little puddle rather than the opposite, and avoid the overcrowded centres.

Henry Watterson, of the Louisville *Courier-Journal*, commends the life of the country editor as giving far more independence and quite as much comfort as metropolitan journalism. Thousands of men in small communities bring up their families in comfort who would have been not a whit happier in a great city. Such men grow slowly, but they have time to ripen.

Instead of seeking the great city with its throng of struggling competitors, I would advise the ambitious youth to try to get started in a town with a future before it. There are boundless opportunities for men of ability and energy in the West and South. A little capital, however, is needed, and the stranger without means is as badly off in a new as in an old country.

Many large business enterprises were founded by men of small means in small places. The wide renown of Douglas, the $3 shoe man, proves that with the aid of advertising a man of energy may succeed anywhere. *Comfort*, the paper with the largest circulation in America, was started in Augusta, Me.

Samuel Bowles and Henry Watterson both gained national reputations by editing provincial journals. The *Detroit Free Press*, *Danbury News*, and *Burlington Hawkeye* were known all over the world. Emerson and Bronson Alcott made Concord a Mecca for all lovers of truth. Hawthorne brooded and wrote there for years, waiting for the world to discover his genius. One of the greatest American surgeons practised in a Kentucky rural community. A man cannot permanently hide his light under a bushel.

At one of the Twilight Club dinners a number of the members gave their reasons for coming to New York from the country, and why they preferred living in New York. It was maintained by some that the metropolis is a great educator, and that in it a man can keep abreast of the best thought and culture of the time. The competition is severe, but the rewards are proportionate. One speaker commended the educational advantages of the large city, and thought it the best place for children to get a start in life. A physician said he was in love with New York, and could not be persuaded to leave it, especially from what he heard of doctor's incomes in smaller places. A clergyman praised the countless opportunities and privileges of the metropolis, and said he felt younger every day. A school principal contended that the moral tone of the big city is, in many respects, infinitely above that of the little town or village. The city boy seldom enters a saloon, but in smaller places it is the resort of young and old, and the conversation is not improving. On the other hand, a distinguished lawyer said he earned his bread and butter in New York, but he did not call it "living," and as soon as

he had a clear income of $500 (!) a year he meant to return to the West, get a new jack-knife and a soft pine stick, sit on the tavern-porch with his former cronies, and whittle all day long. Another speaker said: "Strong individualities stand out in the small community with almost indecent distinctness. New York is a good place to enjoy freedom for one's idiosyncracies. Yet I pity the child brought up in the city, with no trees or brooks, no chance to go fishing, or to play outdoors and make pets of domestic animals."

These are the opinions of men who have established themselves in the metropolis; but they do not enable the boy who wants to go to the great city to decide positively whether it is best to do so. "It is a question whether you care to climb a long or a short ladder," said a friend. In the large city one can rise higher, though there are greater chances of falling lower. The greater the height the greater the fall.

Neither in the United States nor abroad have the great men of thought and action been city born.

The early Presidents of this country and the members of their cabinets were mostly residents of small towns. Washington, Jefferson, and Adams were farmers. Of President McKinley's cabinet Secretary Sherman came from Lancaster, Ohio; Lyman Gage was born in Madison County, N. Y.; General Alger was a farm boy in the Western Reserve; Secretary McKenna, though a native of Philadelphia, was reared in Benicia, Cal.; Secretary Gary came from a Connecticut village; Secretary Long from Oxford County, Me.; Cornelius Bliss is a native of Fall River. Webster, Clay, Calhoun, Jackson, Seward, Grant, General Sherman, Chase, Lincoln, Colfax,

Garfield, Hayes, Garrison, Beecher, Horatio Seymour, and Gen. Joseph R. Hawley all came from small communities.

Newburyport, Mass., produced a remarkable list of notable persons, including Whittier and Harriet Prescott Spofford. Nantucket was the birthplace of Lucretia Mott, Maria Mitchell, and Mrs. Child. A little Maine village has produced a vice-president (Hannibal Hamlin), a Postmaster-General, members of Congress, Governors, and prominent lawyers, judges, editors.

Chauncey Depew came to New York from Peekskill; Horace Greeley and Charles A. Dana from New Hampshire; Cyrus Field from the Berkshires; Grover Cleveland from Caldwell, N. J.; ex-Mayor W. L. Strong, W. D. Howells, the Rockefellers, S. C. T. Dodd, and Whitelaw Reid from Ohio; Albert Shaw from Minnesota; R. W. Gilder from New Jersey; Roswell P. Flower from Watertown; Russell Sage from Troy; Roscoe Conkling and Noah Davis from Western New York; Jay Gould and H. K. Thurber from the Catskills; Thomas C. Platt from Tioga County; Levi P. Morton, Chester A. Arthur, and William M. Evarts from Vermont; not to name a hundred other countrybred boys who have made their mark in the metropolis.

The three chief managers of *McClure's Magazine* were country boys and "chums" at Knox College, Ill.

But not all country boys who come to the city succeed. Many men lead obscure lives in the great cities who might have won honors in the small towns. It requires exceptional ability to win one's way against cut-throat competition.

CHAPTER XIII.

THE CITY BOY.

Public-School Studies Superficial—"Clerk Factories"—Incompetent Applicants for Situations—Genteel Occupations—Openings for City Boys.

THE city boy, despite his airs, is neither so vigorous nor so self-reliant as his country cousin. He finds more opportunities to earn a living, but he meets with more rivals. There are hundreds of applicants for every position, and competition forces the pay down to the lowest point. Living expenses are also heavier. The risks to health from sedentary occupations, long hours in ill-ventilated offices, stores, and workshops are serious. There are fewer inducements to outdoor exercise.

George Tallman, writing in *The Christian Union* years ago, shows how little the city boy has to look forward to. Bootblacks and newsboys earn an uncertain living, and are exposed to temptation and hardship. Messenger boys earn $3.50 a week and have to pay for their uniforms and many fines. Cash boys get forty cents for a day of ten hours. Fifty cents a day is a fair average for boys in factories. Even if he lives at home, the boy who is forced to go on the street or into a factory before he has the strength or education to do good work remains an unskilled worker all his life. Manufacturing is car-

ried on upon a larger and larger scale. The division of labor is greater and greater. Not only does the gulf between capitalist and laborer widen, but with it the gulf between skilled and unskilled labor. The time was when a boy who went in at the bottom could come out at the top. But this is scarcely possible now, excepting in rare instances.

A prime cause of this state of things is the superficial studies in the public schools. The poor man's son leaves early with the merest rudiments of knowledge, and is only fitted to begin in any calling at the bottom of the ladder. The average city boy of fifteen has learned to write, spell tolerably well, and cipher a little. He has a smattering of geography and American history. If of foreign parentage he may speak some language besides English. His chief source of information is the newspaper, with its hodgepodge of crime, politics, and gossip. He has also read some little fiction.

Many youths of sixteen can hardly write a receipt or make out a bill. To compose an ordinary business letter is quite beyond their powers. *Seventy* applicants for a clerkship were rejected for sheer ignorance. A business man remarked: "We have to make boys over again and train them to suit our needs." Thousands of foreigners are employed because native Americans of equal capacity are not to be had. A New York merchant received one hundred and fifty replies to an advertisement for an office boy of sixteen; wages, $6 per week. Most of the writers ignored the conditions entirely. They all showed carelessness, want of neatness, and ignorance of grammar. Many wrote on scraps of paper; some on

postal cards; others with red ink. Their ages ranged from fifteen to thirty, and the salary asked was from $7 to $30. Only three applications were really correct.

Yet there is a steady demand in a variety of occupations for really competent boys. The principal of a New York school, famed for its thorough instruction, says every capable pupil is apt to find a place when he graduates. It is the same with the graduates of both sexes from Packard's Business College and other institutions that train students thoroughly and practically.

New York is a hive of industry. It attracts so many strangers in search of work that the beginner is shoved aside, partly because he is untrained and partly because a full-grown man will take the place at the same pay. A good many boys find employment as porters, drivers of wagons, and in similar positions. Places on the police force are in great demand, but Commissioner Roosevelt found it difficult to secure city men who could pass the examination, and had to invite applicants from the country. Postmen and firemen get good pay, and such places are much sought after.

It is rather curious to consider why so few native New Yorkers have become prominent. In a published list of one hundred leading citizens of the metropolis, over ninety were shown to be country bred. Seth Low, Theodore Roosevelt, George Gould, Louis Tiffany, Charles W. Dayton, Stuyvesant Fish, Perry Belmont, and Edward M. Shepard were "to the manner born," but the leading divines, editors, doctors, artists, and business men are immigrants from

other States or other lands. Is it from lack of mental or physical vigor that the city stock is distanced by these competitors? The same conditions exist in London, Paris, Berlin, and other European cities, which are filled with strangers from the provinces, who, because of their greater energy and capacity, supplant the city-bred men; even artists are not developed in the great centres of culture. They spring up anywhere and everywhere, and finally drift to the cities in search of teachers and patrons.

Horace Greeley justly complained that our public schools are only "clerk-factories." Their desire to follow a "respectable" calling and their unfitness for any other pursuit, force many young men to accept pitiful pay at the start, and even to pay premiums to enter good establishments. After working for years they may earn from $15 to $18 as entry-clerks or assistant bookkeepers. Their duties are monotonous. They see little of the world, make few acquaintances, and are apt to sink into a rut. If they are with a large concern, they are kept at one thing and learn nothing else, while relatives and young men with "influence" are promoted over their heads. They cannot think of starting for themselves, because they have no capital. If they marry they must pinch and save to keep up appearances, while if they have large families or sickness comes, their trials are often tragic.

I am speaking of the mass of commercial clerks. Of course, there are exceptional cases of men being taken into partnership, or placed in charge of agencies or in other confidential positions. But the majority of clerks and bookkeepers are not well paid, and when they pass middle life they are apt to be

shelved. Recently a capable friend of mine was summarily dismissed after being thirty years in one position. Many business firms are merciless toward old and tried employees.

CHAPTER XIV.

LEARNING A TRADE.

The Best Field for a Boy Who Likes Tools—Employers Who Have Risen from the Ranks—Trades Becoming Dignified—Manual Training-Schools—The Plumber's Field—Value of Technical Training—What Workmen Should Read.

A TEACHER once asked me with great earnestness, "What can our smart boys and girls do besides being lawyers' clerks, and milliners?" My answer was, "Set the boys to learning trades." Yet the very same day a mechanic complained that the average young woman would sooner marry a "counter-jumper" with $12 a week than a journeyman earning $3 a day. In Philadelphia an advertisement for a clerk brought four hundred and eighteen answers, while one for a wheelwright's apprentice received three. It seems a sad perversion of our educational system that so many boys consider it more "genteel" to run errands, sweep out offices, build fires, and copy letters, than to make hats or shoes, lay bricks, wield the saw or jackplane, handle the machinist's file or the blacksmith's hammer. A country which prides itself upon its industrial supremacy and inventiveness, which has produced such men as Franklin, Robert Fulton, George Steers, Goodyear, Bigelow, Horace Greeley, the Hoe brothers, McCormick, Carnegie, Edison, Ericsson, Herreshoff, and Fairbanks

should foster a sentiment that would lead the rising generation to rival their achievements.

The great mass of the builders and contractors whose work is seen in the monster hotels, apartment-houses, office-buildings, theatres, and churches, erected all over the country, have risen from the ranks. Most of them have worked as mechanics and some even as laborers.

Mr. See, the author of "Chordal's Letters," a practical mechanic and expert engineer, writes in the *American Machinist:* "If you know of a bright sixteen-year-old boy, smart and independent, with snap, pride, poverty, good health, and a common-school education, and with a hankering after the mechanical arts, tell him to go into a machine-shop and learn the trade."

"Is there no show for machinists? Turn to the last pages of the *American Machinist,* and there read the biography of the workingman. The advertising pages tell the tale. Sixty men put their names on those pages. They employ five thousand workmen and over $6,000,000 of capital. Were these sixty men born with these millions in their pockets? Did they fall heir to the cash and the shops, at an early age? Not a bit of it. At the age of eighteen over forty of these men were working in shops."

James Nasmith, the inventor of the trip-hammer, was the son of an artist, who was also an amateur mechanic. He was thoroughly trained, both as a draughtsman and in the use of tools. When he visited Henry Maudsley in London and desired to be taken as an apprentice, he was at first rejected, but upon showing his drawings and specimens of his

mechanical skill he obtained admission, not as an apprentice but as Mr. Maudsley's personal assistant. This was the foundation of his after-success. Thousands of other mechanics who began with no help but a stout heart, a clear head, and a dogged determination to win success, to-day are respected members of society.

The Talmud says: "He who teaches not his son a trade is to be regarded as if he had taught him how to rob." In ancient times even kings were required to learn trades, so as to be self-supporting in case they lost their crowns. In 1894 Robert Louis Stevenson wrote: "Were it not for my health, which made it impossible, I could not find it in my heart to forgive myself that I did not stick to an honest, commonplace trade when I was still young, which would have now supported me during all these ill years."

No calling should be avoided because it may not seem genteel. Surgery, once a function of the mediæval barber, is now a most dignified and highly paid profession. So with dentistry, pharmacy, and veterinary surgery, which rank far higher than any one dreamed of a generation ago. Within that period also the much-abused plumber has become a sanitary engineer, and the tinker is now a man of standing. The express-business and news-dealing have grown from humble occupations to be great industries. The family nurse is the graduate of a training-school. Even New York street-sweepers, since they were uniformed, have gained dignity and public respect.

It is high time that our boys should be brought to face the fact that the commercial world is overstocked, and that it is foolish to enter into competition with

the throng of beginners, who all want to get rich with the least effort, and rival the wealth of Gould or Vanderbilt.

An ordinary clerk is not so well paid as a first-class mechanic. He has far less independence and not half so good prospects. The mechanic's work is more healthful; he is less likely to lose his place in dull times, is only discharged from necessity, and has equal chance of promotion. The average clerk does not require special ability, but a mechanic must be intelligent, and, if he is industrious and observing, he improves daily. Machinery has often cut wages and thrown workmen out of employment, but immigration has displaced thousands of clerks. A mechanic with a kit of tools and enough money to hire a basement or a loft may start on his own account, or he may work at home. If he has energy and makes friends, he will have little trouble to get along. I believe that more mechanics than clerks own their homes, they enjoy more comforts, and when they die they leave their families better provided for.

Here are a few examples of boys who have succeeded in trades. A New England mother had a son who threatened to become wild. A friend advised putting him in a machine-shop. The boy in time became superintendent and finally married his employer's daughter. This is an exceptional case, yet, when I see scores of young men with gifts for construction and for administration, slaving at office-work, I feel that their lives have been failures. A Southern editor had a son who shirked study, and was always visiting workshops and factories and bringing home sketches of machinery. His father, finding punish-

ment useless, placed him at seventeen in a factory, where he was paid twenty-five cents a day. Five years later he was earning $80 a month as engineer on a sugar-plantation. A second son studied shorthand for two years, but failed to succeed. His father then bought him a $20 printing-press and now he is established as a printer. Neither of these boys would have earned his salt in a profession or as a clerk. A boy on a Jersey farm, the son of poor parents, studied surveying and mapped the farm. He then got a place with Edison, and before he was twenty-one was sent to Mexico to set up an electric-light plant. There are scores of similar cases.

Of course a boy to succeed must have an aptitude for mechanics. Gen. F. A. Walker said: "You can no more make a first-class dyer or a first-class machinist in one generation than a Cossack horseman or a Tartar herdsman. Artisans are born, not made."

But how shall the boy with a fondness for tools get started? The old apprenticeship system has disappeared. In certain trades a limited number of boys are admitted, but it is nobody's concern to teach them, and they make slow progress. Horace Greeley said: "To make an editor you must catch him young and feed him on printer's ink." Manual dexterity can only be acquired in youth. Professor Adler favors giving manual training in the kindergarten and thus preparing the boy to enter at once on his trade. Before long we may hope to see manual instruction, instead of the many useless things now in the curriculum, taught in the public schools. If a boy on entering a shop has some idea of the nature of the materials used and of the natural forces which operate in

treating these materials to convert them to practical ends, he will get along faster than if he lacks such knowledge. Hence the value of technical training.

The superintendent of a New York carriage-factory has had unusual success in training beginners. He arranged with the principal of a public school to send promising boys to him. They were set at piece-work, and in a surprisingly short time earned good pay and became serviceable. Within a few years he trained over sixty boys. One youth of eighteen could turn out the best work in his line made in the United States. Unfortunately, few superintendents possess this talent. A man engaged in directing a large establishment has no time for anything else, and, besides, teaching is a business in itself. In the Hoe brothers' printing-press works the boys are taught systematically in night classes. Addison B. Burk states that in smaller towns and villages in Pennsylvania the old-time relations of the apprentice and master continue. The workshops of large cities are largely supplied with skilled workmen from these places.

Under the old system a beginner had to associate with rough, ill-bred, and often vicious boys, who were put to learn a trade because they were unfitted for anything else. An apprentice had to clean his master's boots, and, though he sat at the master's table, he often did not have enough to eat. In many trades boys used to do nothing but dirty work—cleaning, sweeping, or hammering the rust from old iron. Consequently they could not learn anything for a year or more. Now that machinery has shortened so many mechanical processes, it seems unjust

that beginners should waste time in needless drudgery. Yet the natural desire of the beginner to avoid or hasten through the dirty-work period in a trade is opposed by masters and journeymen, who think that every one should pass through the same ordeal as themselves.

No sensible man would encourage squeamishness or a fear of soiling one's fingers. The doctor, the lawyer, and the clergyman perform disagreeable service, but they do not complain. So the trade-school graduate should be willing to do everything needed to qualify himself for his calling. Yet to say that a youth should waste a single hour in mere drudgery is a statement born only of prejudice or of ignorance.

Foreign workmen, especially Germans, have better preparatory training than Americans, but they are less versatile and are apt to run in ruts. John Lafarge considers that a first-class American mechanic has no superior.

Complaint is made in most trades that boys will not stay long enough to learn anything. A boy begins with, say, $4 a week, and after a few months he suddenly leaves to go into possibly an entirely different trade for the sake of another dollar a week. As a result the youth becomes a "half-baked" workman.

I once had as clerk a German-American boy of eighteen. He left school at nine, tended a shoe-dealer's stand, worked in a laundry, then in a cigar-factory, later in an office, and then as assistant steward on an ocean steamer. He never earned more than $5 a week and knew absolutely nothing. When set to copy a type-written letter he wrote small i's instead of capitals. In addressing wrappers to leading Ameri-

can cities he could not tell what States they were in. It is melancholy to think of his future, as he was unfit for any position requiring training or brains.

I would strongly advise young men to become plumbers, in spite of the fact that most people disparage the trade. This is because, until lately, it has been monopolized by ignorant bosses, who have brought it into disrepute. A first-class plumber must understand both the theory and practice of sanitary science. He ranks with a machinist or engineer. Within a very few years the trade has been revolutionized, and there is a growing demand in all parts of the country for capable plumbers. A young man who is master of the trade has a great advantage over the ordinary, ignorant, unscrupulous plumber, and should have no difficulty in getting plenty to do. Not only is there a steady demand for new buildings in all parts of the country, but repairs and alterations are also going on continually, and the plumbers who can give satisfaction to customers easily succeed. One of them once told me he had not lost a week's work in thirty years. He said there were four men in his shop who received fifty cents a day extra because they could follow plans and specifications correctly, measure and order exactly what materials were needed, were able to explain clearly to customers just why certain things should be done, and could act with discretion in emergencies. Such practical sagacity and "gumption" count for much. The timid and indifferent workman who blindly follows orders when he knows they are wrong or need to be modified is the first to be laid off when work is slack.

An employer speaks of the difficulty of judging

whether a boy is fitted to learn a trade. He describes two apprentices who were under training. One was a quiet, studious, good boy, fond of reading, of a neat appearance, could talk correctly about the business, yet he was a poor workman. After his time was out he never could keep a job. He finally went into another business and is doing well at it. The other was always in mischief, full of pranks, continually being complained of, but when he received a kit of tools and was set to work he was a success. He was not a reader, but had the knack of seeing into things or the cheek to ask about what he didn't know. To-day he is a good, reliable workman, earning good wages.

In "Chordal's Letters" a similar description is given of the difference between a boy made of putty and one with brains. "I was in the office of a certain engineer the other day, and a mutton-headed boy, about nineteen, came in. He was a machinist. His father owned a shop and he had served his time in it. He wanted to learn to 'draft,' he said. His father wanted him to learn; he wanted to learn himself, and his father would pay all reasonable bills. Torrson, the engineer, began to catechise him. 'What have you ever drawn?' 'Nothing!' 'What have you ever wanted to draw?' 'Don't know as I ever wanted to draw anything, and could not make a "draft" if I wanted to, because I never learned how.' 'That's all right,' said Torrson, 'you will never draught anything, and will never be wanted to. I'll see your father this week.' Torrson turned to me and said he had a dozen such fellows to deal with every month, and treated them all the same. 'But,' said he, 'when

some greasy boy slips in here and pulls out some horribly original drawing, and asks me why the ink lines run when he puts color on, or how a fellow is to judge good India ink, or how this thing is to be drawn so another can understand it, then I quit work and stay by that fellow, and place my time and library and office at his disposal."

Law-schools were scouted at first, but no one now disputes their utility. Some practical men entertain the same prejudice against trade-schools and say: "We got along without such help. Let the boys of to-day follow in our footsteps." But they do not allow for changed circumstances. They ridicule the idea of being taught by "theorists," but fail to distinguish between the teaching of principles and of practice. During the civil war men who had commanded clipper ships around Cape Horn took lessons in navigation from the daughter of an old sea-captain in order to obtain a certificate that would entitle them to command a government transport.

Teaching is a specialty, and the foreman or superintendent usually has neither time nor aptitude for it. He has learned to do many things in a rule-of-thumb way, but he does not understand the scientific principles which underlie and regulate his work, and he cannot give the reasons why things are done in a certain way.

The trade-school does not pretend to teach more than the rudiments; therefore, if possible, it should be attached to a business establishment, as at Worcester, Mass., where the pupil can enter at once upon practical work. At the Baldwin Locomotive Works

in Philadelphia the pupils from the Spring Garden Institute are placed under an older workman. A boy with six months' training ranks as high as one who has had a year's shop practice.

Manual training counteracts the narrowing effect of the subdivision of labor, which confines a workman to one thing and tends to make him a mere machine. There need be no fear that it will spoil young men. A smattering of book-learning breeds conceit, but not skill with tools. As Professor Sweet says: "The workman is injured by scientific training when he thinks more of what he knows than of how to apply it. It is the little knowledge that demoralizes." Gen. Francis Walker says: "Manual training teaches accuracy, thoroughness, and develops character. It trains the eye, the hand, and the brain. There can be no cramming in a trade-school. What we read or hear may be forgotten, but not what we *do*."

Every Jewish child was formerly taught some industry. Queen Victoria made each of her family learn engraving, painting, or needlework. The first Emperor William followed the same course. The late Courtlandt Palmer, who sent two of his children to a trade-school and two others to a private school, declared that the former made more rapid progress.

Manual skill breeds self-respect. In Great Britain an artisan may sit in Parliament, but a man-servant has no higher ambition than to keep a public house. Thomas Carlyle spoke with reverence of the bridge which his father, the stone-mason, erected at Cromarthy. Among the New Lebanon Shakers handwork is rated as high as head-work, and Elder Frederick Evans took far more pride in a substantial wall

and a well-pruned orchard than in his books and addresses.

Carlyle says: "A man is a tool-using animal." Every boy should be taught to do something with nature's tools, his hands. "Any one who can learn to write can be taught to draw," says Prof. Walter Smith, and drawing is the basis of manual education. Very young boys can be trained to use ordinary tools, as has been shown at the Boston Whittling School.

The trade-schools in New York, Brooklyn, Philadelphia, Chicago, and other cities provide practical training in carpentry, bricklaying, plumbing, plastering, metal and sheet cornice-work, stone-cutting, fresco-painting, decorating, and electrical work. Over six thousand young men have attended the New York trade-schools, an average of five hundred yearly. They come from all parts of the United States and Canada. Most of the graduates earn good wages. A number are master-mechanics. Many of the pupils have worked in shops and sought to improve themselves in some special line. They make rapid progress, because they know just what they want to learn. The growth of the school is the best proof of its value.

Mr. Mundella says the graduates from the English technical schools surprise their friends by the high wages they get. One young man earned more than his father and two brothers. Dr. Edward Jarvis says: "Education increases the value of the common laborer because of the saving in supervision. The ignorant man merely imitates some one else so long as he is watched, but he makes blunders and is a great tax upon capital." To set a $5 man to direct a $2 man, is a waste of time and brains. The edu-

cated workman needs little supervision. On the other hand capable men are kept from promotion by their inability to keep accounts. An intelligent mill-hand will produce more, and will keep his machine in better condition, than an ignorant one. He is also less inclined to intemperance. By the testimony of workmen themselves increased skill and aptitude come from education, and the superior workman performs his work with less labor than his fellows."

It is not wise to tempt students by easy lessons. If technical courses are to be useful they must be thorough. Professor Baraff says: "It is useless for a person who knows a little chemistry or a little electricity or a little mathematics or mechanics to attempt to apply his knowledge to practical purposes." The youth who has worked in one shop only will appreciate his ignorance when placed in a larger establishment, and still more when placed in the technical school where all varieties of work are explained by competent instructors.

Not every one has sufficient resolution to sit down to his books after a hard day's work. Few persons also can study alone. They need the stimulus which comes from contact with other students and also the guidance of a trained teacher. Many mechanics have been greatly benefited by taking the course of the Correspondence School at Scranton, which seems to be an admirable institution.

Not every apprentice becomes a skilled workman. No more does every clerk become an Astor or a Stewart, or every law-student an Evarts or a Choate. But that is no reason why manual labor should be condemned.

Piece-work is often a drawback to a boy. His employer is benefited, but the boy learns little, and has no hope of advancement. This leads many boys after being a year or so in a shop to seek work elsewhere.

In trades requiring artistic talent, like cabinet-making, wood-carving, and lithography, foreign workmen take the lead, while in railroading, the machinist's trade, and plumbing, native Americans succeed.

What is especially wanted to promote our industrial future is to multiply the number of trained foremen and superintendents. A good general can make an army out of almost any material. So with proper superintendence a factory or a shop will turn out a far higher quality of work than without it.

A young man aspiring to be a mechanic should ask himself: Do I honestly and sincerely want to be a good workman and a credit to my trade and to my friends, or am I seeking only to make a living in the easiest and shortest manner? As *Caleb Garth* says in "Middlemarch": "You must be sure of two things: You must love your work, and not always be looking over the edge of it, wanting your play to begin; and the other is: You must not be ashamed of your work and think it would be more honorable for you to be doing something else."

The technical trade-journals supply a fund of information. They are found in every workshop and in thousands of homes. Their effect in stimulating study and imparting new ideas is great and wholesome. Such journals as *The Scientific American, The American Machinist, The Metal Worker, Carpenter and Builder, The Iron Age, The Railway Gazette, The Shoe and Leather Reporter, The Hub, The American*

Builder, not to mention others, exert a potent and widespread influence. It is difficult to bring together the members of a certain trade for mutual intercourse and discussion, even in a metropolis like Paris, London, or New York. The technical journal, however, like the telegraph, annihilates space and time, and joins the most distant individuals into a cohesive whole. The isolated artisan in some factory town or village, who reads the trade-journals, feels himself linked by sympathy and self-interest with his fellow-craftsmen. The researches of investigators in special lines are brought to the attention of those most interested in them. The columns of these journals supply a vehicle for discussion and for advancing knowledge in every department of progress. They have become the only substitute for the ancient guilds. The same benefits which accrue from journals like *Nature* and *Art* have resulted from the technical and trade journals. The fact that they are so widely read and quoted is a proof of their value.

In "Chordal's Letters" there are some sensible remarks for mechanics on the subject of reading. "What books should machinists read? This question is asked of some one supposed to know, about a thousand times a year. Mechanics, as a general thing, are pretty well advanced in years when they want these books. They can't comprehend anything fine or deep or analytical, and cannot spend time to attain the necessary elementary book-knowledge. They despise a book which treats them as children. Walker is a carpenter, and is patronizingly urged to go to the library and read up his trade and rise in the world. He knows nothing of books, and takes

the first one with carpentry on the back of it, say, 'Constructive Carpentry Practically Considered.' He could not define the title to save his neck, but proceeds to look into it. He finds many demonstrations and geometrical diagrams, but he can't get into sympathy with the thing; says the author's a fool who couldn't shove a saw, and he puts the book away. He takes another, the 'Complete Carpenter.' On the first page he sees a villanous cut of a saw, and he reads: 'This is a hand-saw used by carpenters to cut off boards. It has teeth upon one edge. These teeth are about one-eighth of an inch apart, and are bent alternately, slightly to the right and left. This bending is termed "set,"' etc. He puts this book away in disgust, and says, 'The author thinks I am a fool who can't file a saw.' Walker won't read one book and can't read the other. The book for him must be tailor-made, and must fit him exactly or he can't get any good out of it.

"The thing is a problem, but there is one good thing about it. A thirst for knowledge will find its own means of satisfaction, and this thirst will never come upon a man in middle life. There is no boy so circumstanced in this whole land that a thirst for technical knowledge will not in a way develop and gratify itself before he is twenty. If there is anything in him, he will have formed an acquaintanceship with books in general, and need ask no questions relating to general direction of study. If such an acquaintanceship has not been formed, friends need hardly regret being unable to suggest a proper path of study. Of course, such reading is mostly done and mostly appreciated by the young chappies who

are priming for the future. If owners of shops will keep one eye open for such tendencies, they will find it an excellent index to character and a pointer toward an excellent plan of encouragement which will repay tenfold."

CHAPTER XV.

SHALL I GO TO COLLEGE?

Sharpen Your Tools—Advantages of College Training—Increasing Attendance at Colleges—The Money Cost—Paying One's Way—Large or Small Colleges?—Temptations and Dangers—Social Benefits—Classical Study—Both Sides of the College Question.

To DO anything in this world one needs tools. Providence has provided these in the shape of hands and brains. A college is one of the places to sharpen them. As knowledge is power, seek the place where it is supplied. It is not the question whether they do this at college as well as they might, but whether the same results can be obtained elsewhere. A soldier would not be content with a tomahawk or club, if he could have a breech-loader. Why enter the battle of life half armed?

A college student may be lazy or extravagant, but it is his own fault if he does not gain knowledge and drill. Ask a farmer what sort of an orchard he would have if he did not prune his trees? Half the failures of life come from lack of early training. Discipline has saved many a rich, luxuriant nature from ruin. It is discipline that distinguishes an army from a mob. A wooden wedge will split a log, but a diamond-tipped drill will penetrate rock. Education puts the diamond tip to the drill.

It will be asked: Why go through college and waste

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time on studies which may not be of direct utility? Why not at once enter a law or medical school and begin professional studies? General culture is the basis of special study. It gives a broader foundation to build on, and has a liberalizing effect on the mind. John Stuart Mill in his famous address at Edinburgh said: "Men are men before they are lawyers or physicians or merchants or manufacturers, and if you make them capable men they will become good lawyers and physicians." Again Mr. Mill, in discussing whether one should study the classics or modern languages, asked, "Why not both?" And so when the question is put to me, "Shall I go to college?" I answer: Why not take advantage of all available opportunities for making a good start in life?

The mass of college graduates take high positions in the business, social, and political world. Mr. Goschen, when asked what becomes in after-life of senior wranglers and first-class men, replied: "Eight of them are at this moment in Her Majesty's Cabinet." Those who do not gain eminence fail not because of their college course, but in spite of it. Most men who have been deprived of such training envy those who have gone to college, and wish they had taken a university course. It is a popular fallacy that self-made men have taken the lead in this country. Of our Presidents, Washington, Jackson, Van Buren, Harrison, Taylor, Fillmore, Lincoln, Johnson, and Cleveland never went to college. On the other hand, Grant was educated at West Point, the two Adamses at Harvard, Jefferson, Monroe, and Tyler at William and Mary, Madison at Princeton, Polk at the University of North Carolina, Pierce at Bowdoin, Buchanan at

Dickinson, Hayes at Kenyon, Garfield at Williams, and Arthur at Columbia. The list of fifty-three famous Massachusetts men inscribed on the dome of the Boston state-house contains seventy-two per cent of college graduates. Among them is Morse, the inventor of the telegraph.

It is claimed to be an advantage for the student to be set apart from the world for a term of years which is consecrated to a general and broadening education. The college is a little world in itself, and through the press and in other ways the student is kept in touch with current affairs. While his mind is not distracted or wasted on trifles, and he can concentrate all his thought on attaining culture and useful knowledge, he does not abide in cloistered seclusion and learned ease. When he graduates he is not expected to know much that is of immediate practical utility, but to have been taught how to learn and to have had his mind strengthened and broadened by a liberal course of study. Hence he is able to master quickly the technical details of any profession or occupation, and in a short time to catch up with and surpass the man who has not been taught how to study.

When so-called "practical" men criticise college education they forget the purpose of training. It is as if they ranked the wood-cutter above the all-round athlete who can outdo a trio of wood-choppers as soon as he is given an axe. His mental capacity is like the power of steam or electricity, which is not confined to running one kind of engine but is applicable to any mechanical appliance. The untrained man makes one think of Niagara going to waste, or only half utilized; or of a team of horses laboring through

mud and mire with a trifling load when they might haul tons upon a Telford pavement.

Swami Vivikananda, in his thoughtful book, "Karma Yoga," "The Secret of Work," happily observes: "What a man learns is really what he discovers. He takes the cover off his own soul, which is a mine of infinite knowledge. The external world supplies suggestions, but the object of your study is always your own mind. Knowledge exists in the mind like fire in a piece of flint. Experience is the friction that brings it out."

Harvey E. Fisk, the banker, in an admirable article in *The Outlook*, on "The Value of a College Education to a Business Man," remarks:

"I am a great believer in laying deep, broad, substantial foundations for all undertakings in life. . . . If a boy intends to become something more than an under-clerk or a small tradesman, he will need the best preliminary education that his parents can afford to give him.

"In the early stage of his career in business a young man will not appreciate what he has missed by not going to college. Assuming that he entered an office or a store at seventeen, and that his friend entered college at the same age, he will feel at twenty-one greatly the superior of his friend in business ability. But five or ten years later the one who had the college training will probably be found to be working more easily, with greater confidence, and with exactly as much success as the friend who had four years the start—if not greater. A college education will strengthen all your faculties, and, rightly used, will be a blessing all through life."

The attendance at American colleges is steadily increasing, notwithstanding that the standard of admission is continually rising. The intellectual equipment of the colleges is enlarging; there are more and higher-paid professors and larger laboratories. Hundreds of post-graduate students attend advanced courses of study at Columbia and Johns Hopkins universities. Thousands of students of both sexes attend the "fresh water" colleges and State institutions which do not attract much attention from the public, yet whose influence is wide-felt and growing. Young America is evidently convinced that college training *pays*. *The Outlook* remarks that a kind of enthusiasm for higher-education seems to be spreading, especially in the West. Never before has there been such a host of young men and young women pursuing advanced courses of study.

The craze for athletics is dying out, and, while certain students are attracted to colleges where athletics are specially cultivated, yet most parents give a preference to institutions where study receives chief attention.

In America about twenty-five thousand high-school pupils and twenty thousand from private schools, or one in six of the total attendance, prepare for college. In the ten years following the Franco-Prussian war the students in German universities increased from fifteen thousand to twenty-four thousand. A similar advance occurred in American colleges after the Civil War. Very curiously the attendance increases in dull times. Enforced idleness leads men to study to acquire additional skill. This applies particularly to the professional and technical schools which pre-

pare men to enter at once upon a self-supporting existence.

West of the Alleghanies a college education is accessible to all classes. In most of the State universities the tuition fees are practically *nil.* In Kansas, for example, board and room can be had for $12 a month; the college fees are $5 a year, while the average expenditure of the students does not exceed $200 per annum. In Eastern colleges the expenses have grown steadily. The fees at Yale have increased in forty years from $60 to $155, and the "ordinary annual expenditures" have risen in a like ratio.

At Harvard President Eliot thinks $499 the smallest sum that could be expended, $615 is economical, $830 moderate, and $1,365 ample. Most students spend between $650 and $850. At Yale the average expenses for the freshman year are $912; sophomore year, $942; and senior year, $1,032. The lowest amount mentioned was $100; the highest, $5,000. The Springfield *Republican* remarks: "The cost of a college course is getting to be something fearful, at least to that class who have in former years sent the best material, who know the value of an education for their sons, and the value of a dollar." If the West follows the example of Yale and Harvard the time is quickly passing when we can say with Mr. Bryce that "it is the glory of American universities, as of those of Scotland and Germany, that they are freely accessible to all classes of the people."

Many students support themselves wholly or in part by farm-work, the care of private grounds and houses, waiting at table in summer hotels, getting subscriptions to periodicals, managing boarding-clubs,

assisting in the scientific departments, teaching at odd hours, writing shorthand, newspaper work, choir-singing, or organ-playing. Such opportunities are rare and can only be picked up after a man has made some friends. Every student should therefore have enough funds to carry him through his first term. No one should try to work his way through college unless he is forced to do it, has good health, and great energy and perseverance. If he does attempt to do so he should expect to take a longer time than usual to complete his course.

Every large college offers free scholarships to students of exceptional ability. At Cornell there are eighteen scholarships of $200, beside thirty-four graduate scholarships, some of $300, some of $400; and several $500 fellowships, in addition to the State scholarships.

It is not wise to assist every young man to get an education. Many an ambitious but incapable youth has been tempted to study for a profession simply because he was promised free tuition. Such help should only be given to those manifesting exceptional capacity. An able writer remarks: "The country is full of incompetent and disappointed professional men, who might have been excellent masons or team-drivers, and nothing but rigid examinations for open scholarships will diminish the number. It is often urged that this will compel some genius to hide his talent in a napkin, but it is better to have a genius now and then miss an opportunity than to hear the wails and howls of the incompetent, in the market-place, from day to day."

The Churchman says the large college is more an

image of the world, but it asks, is the world the best model for a university? Discipline is more easily evaded in a large college, and individuality may be lost. The large college often imparts prematurity in the experience of life, with immaturity in far more essential elements of education. Dartmouth is a small college, but it gave us Daniel Webster and Rufus Choate. Little Bowdoin made for herself an everlasting name with that memorable class of 1825—Longfellow, Hawthorne, John S. C. Abbott, and George B. Cheever. President Smith of Trinity cites the graduates of Kenyon College as showing what a small institution can do. Among them were President Hayes, Secretary Stanton, Judge David Davis, Justice Stanley Matthews, Bishop Wilmer, and Henry Winter Davis.

In an article in the *North American Review*, Rossiter Johnson remarks that the small colleges are breaking down sectarian prejudice. Nearly every one of our colleges is controlled by some religious denomination. If it drew its students mainly from that denomination they might become bigotedly sectarian. When it draws them from all denominations the tendency is toward liberalism, and the students acquire a breadth of mind which they would never otherwise obtain. Mr. Johnson adds that while formerly the mass of college men entered the learned professions, now numbers of graduates follow business, manufacturing, or agriculture. This cannot but have the happiest effect upon the community. As the intelligence and scholarship of clients, parishioners, patients, and readers are increased, the lawyers, clergymen, physicians, and writers are necessarily driven to a higher

andard of culture. He therefore prefers the small olleges because of the better opportunity for per-onal acquaintance and of direct contact with profes-ors who can exert an inspiring and shaping influence ıpon young men at the most susceptible age. Yet, on the other hand, the prestige which is gained from being a Harvard or Yale graduate is worth a great deal to any one, especially to a professional man. It is like the hall-mark on sterling silver, a sort of official stamp to show that a man is a scholar and a gentleman.

A writer in *The Nation* divides college students into three classes: First, those who love learning and seek knowledge at any sacrifice; second, those who simply want to get a degree, with a respectable class standing, without annoyance or disappointment to their parents, but who are not specially zealous or industrious; last of all, there are the regular idlers and dunces and scapegraces, who are the affliction of families and the despair of professors and deans. The last two classes make up seventy per cent of the undergraduates of every large college.

The Bavarian minister of public instruction has officially protested against the young men with no taste for learning, who crowd the gymnasium for the social advantages it gives, and for its aid in entering the military or civil service, and who in consequence of their failure to graduate become intellectually crippled and a public calamity.

In the early days of Yale Professor Silliman reproved "Chevalier" Wycoff for having a carpet and paper-hangings in his room, remarking that "all this love of externals argues indifference to the more neces-

sary furniture of your brain, which is your spiritual business here." Up to 1842 all students ate in commons, drinking in turn from the cider-pitcher. The poor students waited on the table. The fare was so bad at times that on two occasions the students rose in "bread-and-butter" rebellion. Such things would not now be tolerated. College expenses have greatly increased, and the accommodations are luxurious in comparison with the past. Modern buildings have replaced the damp and unwholesome dormitories, and the poorest student now fares better than the best in earlier days.

In regard to college morality, those best competent to judge insist that there has been a steady improvement. There is now very little vice and dissipation. The students spend more money than formerly, but in a more refined way. Their rooms are tastefully furnished. They patronize clubs and athletics, and pay liberally for social enjoyments, but drinking is less common than in earlier days, and gambling is confined to the fast set, always a minority. Nevertheless, it is a serious problem to consider what must be the effect on a weak or lax youth when dropped into a little world containing a thousand students. The fact that translations of the classics known as "ponies," though forbidden by the authorities, are generally used in many colleges, is not creditable to the sense of honor of the students. Therefore do not send your boy to college unless he can stand alone and resist temptation. To be pushed out of the parent nest and forced to fly before the wings are fully fledged and strong, may result in disaster.

Walter Bagehot says: "In youth the real plastic

energy is not in tutors or lectures or in books 'got up,' but in Homer and Plutarch; in the books that all read because all are interested; in the argumentative walk or disputatious lounge; in the impact of young thought, of fresh thought on fresh thought, of hot thought on hot thought; in mirth and refutation, in ridicule and laughter, for these are the free play of the natural mind." Carlyle called a library "a university," but it is the close contact with fellow-students in varied relations that exerts the strongest influence on the mass of students. "Man made the college, but God made the playground," said Bagehot, who usually hits the mark. Emerson sums up the matter in his calm and lucid manner: "To a brave soul it really seems indifferent whether its tuition is in or out of college. And yet I confess to a strong bias in favor of college. I think we cannot give ourselves too many advantages, and he that goes to Cambridge has the best of that kind. When he has seen their little all, he will rate it very moderately beside that which he brought thither. There are many things much better than a college—an exploring expedition if one could join it, or the living with any great master in one's proper art; but in the common run of opportunities and with no more than the common proportion of energy in ourselves, a college is safest from its literary tone and from the access to books it gives; mainly that it introduces you to the best of your contemporaries."

N. P. Willis' experience at Yale "brought him into the sunshine and changed the homely schoolboy chrysalis into a butterfly of uncommon splendor and spread of wing." This phrase well describes

what college training has done for thousands of young men. Dr. Bushnell went to Yale a clumsy lout and in two years was transformed into a gentleman. As the best polish for diamonds is their own dust, and as clothespins make each other smooth, so the friction of mind on mind transforms the youth into a man. William Pitt had few college companions, took no part in athletics, but studied hard under a private tutor, kept aloof from society, and was consequently reserved, shy, and stiff. He thus missed much good-fellowship and never had the conceit taken out of him, as happens to most young men. But, as Bagehot says, "Pitt was a genius and destined to perform a task which required all possible self-confidence and personal pride, and it would have been no benefit to have curbed his great force of character."

While every student should strive to make a good record, yet it is well not to place too much value upon school honors. Real ability is not to be measured by such tests. Robert E. Lee was the only great soldier of the rebellion who graduated from West Point at the head of his class.

Charles Francis Adams complains that he wasted a great deal of time trying to learn Greek. He thinks the notion that it is mental discipline is a delusion, and that modern languages furnish a better equipment for the work of life and just as valuable intellectual training. *The Nation* answered Mr. Adams' arguments by stating that seven-tenths of the students in the large colleges have no real love of learning, and the other fraction "get out of the classics all that it would be possible for them to get out of any study." The great difficulty of colleges is not the

difficulty of selecting the right kind of knowledge to offer, but the difficulty of getting the young men to acquire it. It cannot be driven into them by main force.

Most of the older American colleges were designed to fit men for the ministry, and Greek was esteemed of prime importance. Now that but few of the graduates study theology, it is maintained that Greek should be taught in special schools, and that the general student should receive the best all-round training, which will make him observe correctly, reason logically, and express himself with precision and elegance. This can best be accomplished by the study of the physical sciences, logic, and literature, with practice in writing and debating. In short, Latin and Greek should be treated like any other special course and not be made compulsory. If, as it is claimed, the study of the classics is such an aid to the mastery of English, it is strange that young men who enter college after several years' drill in Latin and Greek fail to write correctly their native tongue.

A distinction must be made between scholars who are masters of Greek and Latin and those who have a superficial knowledge of the ancient tongues. It is assuming too much to say that the slight knowledge of the classics acquired by the average college graduate has been the chief influence in developing his mind.

Herbert Spencer and Lincoln learned to think profoundly and express themselves clearly without the aid of Latin and Greek. John Bright, Beecher, and Spurgeon did not learn eloquence from Demosthenes or Cicero. Daniel Webster gained distinction as an

orator when he began to prune his speech of Latinisms and to use his mother tongue. Dr. Johnson talked terse Saxon; his written style was Johnsonese.

Let us free our minds from cant, and admit that, while Latin and Greek are indispensable for the scholar, yet for the average man they are not so. The college student toiling with a lexicon cannot be expected to master the beauties of an intricate language. At best the amount of real knowledge that he gets is very slight, and that is of a grammatical cast, which repels rather than inspires delight in the beauties of the thought expressed. The best of the classic authors can be read in translations, and, as Emerson said, "What is the use of swimming Charles River when one can walk across the bridge?" Furthermore, translations are used extensively in all colleges, though against the rules, and the great mass of students rarely look into a classical author after they graduate. Henry George said that he could get the spirit of the classic writers filtered through translations. The average man must be content to imbibe the spirit of Plato and Homer through Jowett's and Lord Derby's translations, to taste Virgil's quality in Dryden's admirable version, and to picture the mighty Cæsar by the help of Plutarch's and Froude's "Biographies" and Mommsen's "History."

A significant fact is that as the struggle for existence grows fiercer, men seek from the college what will best help them to gain a livelihood. The gain in attendance at colleges has been chiefly in the professional schools. Men will not devote as much time to general studies as formerly. From 1880 to 1884 the academic classes at Yale increased from 612 to 1,159,

while the scientific classes grew from 190 to 655. At Harvard the academic classes doubled during the same period, while the scientific school increased from 37 students to 320.

It may be well to shut one's eyes to the glamour that surrounds college training and to ask bluntly: Does it really accomplish what it claims to and is the result always worth the effort and the cost? Possibly the men who have taken the college course assume that it has done more for them than the facts will warrant. As the conscientious physician cannot be sure that quite opposite treatment from his own, or no treatment whatever, might have relieved the patient, so we cannot assert that a wholly different training might not have accomplished better results than that which a person has received. It is charged, for example, that self-made men are conceited and "worship their creator." But is not this the very fault popularly ascribed to the college graduate? If one seeks for marked exemplars of humility it is easy to find them among self-taught men, such as Franklin, Herbert Spencer, Mill, Darwin, Lincoln, and Washington, while the arrogance of a Freeman or the omniscience of a Macaulay prove that the severest intellectual discipline does not alter individual temperament.

It is a severe reflection upon college training that our seats of learning are usually hotbeds of conservatism. What can be thought of the effect of liberal studies which make men intolerant of new ideas? A true university should be a centre of free thought, where advanced ideas on all topics will find warm welcome. Is this true of Cambridge and Oxford, Yale and Harvard?

A third point in the discussion is that, despite the current arguments in favor of liberal studies, a great many students take only the technical courses, and are entering the professions without crossing the classical bridge that has hitherto been held to be the only way to reach the goal of knowledge.

To the youth who cannot go to college I would therefore say: Do not be discouraged. There is no royal road to knowledge, and all paths lead to the temple of learning. While most men get along best in the beaten track, others can carve their own way, and, like Bishop Vincent, give themselves an all-round culture and training, unaided by professors or recitations. No one need remain ignorant if he chooses to learn.

The Chautauqua course of home study is open to the most isolated—to the youth on the farm, the bedridden invalid in her chamber, the lone settler on the prairie, or the colonist in far-distant lands. In every American town of any size there are libraries and lecture-courses, while the newspaper bears the latest intelligence to the most distant and secluded parts of the globe. Even if deprived of books you can study human nature, and try to understand men and women so as to deal with them in all relations of life. You can also make yourself familiar with the vast world of nature which is within the ken of every open-eyed person. If you gain these ends without going to college, be content. Do not repine because you have missed other advantages. As every open field is a practice-ground for the athlete, so the world is at your service if you will but seize the chance.

I would say to the isolated student, read the great

writers of your own and other ages—Homer, Plato, Dante, Goethe, Shakespeare, Darwin, Emerson. Don't waste your time on small books. Whatever you study, master it down to the bottom. Learn to tear out the heart of a book, as Theodore Parker used to do, and get at its inner meaning. Finally. master your mother-tongue, the language of Chaucer, Shakespeare, Swift, De Foe, Bunyan, Burns, Shelley, Franklin, and Lincoln, and strive to speak and write as they did.

CHAPTER XVI.

JOURNALISM.

Editors *versus* Writers—Insight or Expression—Strong Convictions Essential to Good Writing—"A Nose for News"—Schools of Journalism—Newspaper Training—Reporting a Fine Art—City or Country Papers?—The Country Editor—Young Men Preferred—Newspaper Salaries—Editors as Office Holders.

JOURNALISM has become an established profession, a veritable "fourth estate," as Windham called it. Hardly any calling has greater attractions. C. A. Dana said it is "the most fascinating, if most laborious, profession." Scholars, lawyers, politicians, and clergymen have all testified to its absorbing interest. J. W. Forney mentions the pleasure which Benton, Douglas, Buchanan, Caleb Cushing and Attorney-General Black took in editorial work. It would be hard to find a public man in America who has not dabbled in journalism. Margaret Fuller, Richard Hildreth, Charles Sumner, Richard A. Dana, Edward Everett, Wendell Phillips, William Lloyd Garrison, Whittier, Poe, Willis, Higginson, Frederick Law Olmstead, Mrs. Stowe, Beecher, Theodore L. Cuyler, Parton, Whipple, Kirk, Archbishop Hughes and "Fannie Fern" are a few among the many Americans who have been regular contributors to the press.

There is a marked difference between the journalist and the mere writer. The latter needs to be skilled in expression, and to have a fund of general informa-

tion. If to these possessions can be added wit, fancy, satire and invention, so much the better. Among the best examples of men of this type were Richard T. Hildreth, William H. Hurlbut, and I. B. Chamberlin of the New York *World*, and Charles G. Congdon of the *Tribune*, who probably were without superiors in their kind of editorial writing. Mr. Chamberlin, like Mr. Hildreth, whom C. A. Dana considered the most valuable and accomplished newspaper writer he had ever known, possessed great political knowledge, with a weighty, dispassionate, and convincing style. Mr. Hurlbut was a highly accomplished *persifleur*, while Mr. Congdon, with equal wit but less brilliancy, had decided convictions, and hence had more influence as a writer. Yet these men, though all remarkably able, cannot rank with journalists like Raymond, Bennett, Greeley, Dana, or Samuel Bowles, who combined the faculty of writing with that of editing. This last function requires an insight into public sentiment, a capacity for originating and shaping a policy, and a knowledge of the make-up and general conduct of a newspaper, which are far rarer attributes than are needed to make a good newspaper writer. The journalist must divine and originate; the writer has only to expound, to illustrate and defend. Insight and judgment are demanded of the one; imagination and a good style of the other. As Emerson remarked: "Of two men of equal ability, the one who does not write, but keeps his eye on the course of public affairs, will have the higher judicial wisdom."

The qualities required to make a good editor are breadth of mind, sympathy, intuition, system and exe-

cutive ability. He should welcome new ideas, yet be keen of vision, so as to detect the true from the false. He should have an orderly mind, and preserve what *The Nation* calls "editorial perspective." Finally, he should exercise perfect control over his staff, not by unnecessary interference in small matters, but by wise allowance for individual idiosyncrasies. Henry Watterson says no one can succeed in journalism unless he takes a deep interest in it. If he has genuine talent, he can make a paper in a mud-heap or in the smallest village. He must possess strong sympathy with popular feeling. This, he adds, was the secret of Horace Greeley's strength, and the lack of it explains the failure of many editors.

The head of a great newspaper should not write at all. He has enough to do to keep the run of events and direct others what to say. Prentice Mulford even declared that it was not necessary that an editor should know how to write. He instanced one successful editor who could not write ten lines of grammatical English, yet writers were instruments in his hands. "There are men in Wall Street," he said, "who could successfully edit a paper, but it wouldn't pay them to do it." Mr. Delane of the London *Times* seldom wrote a line, yet his personality was so stamped upon the paper that when he took a vacation the most careless reader became aware of the fact. Every important news item had to have his approval. He knew not only what to print but what to omit, a most important qualification.

A really great editor is he who inspires his staff to the most splendid achievement, spends money lavishly for the earliest and most important news,

distances all rivals by his foresight, liberality and strategy, and discusses public questions in a broad and tolerant spirit. Such men are rare, and their rewards are proportionately great.

A journalist should not be a narrow partizan, but should be open-minded and fair in treating public questions. Henry J. Raymond invented good manners in newspaper discussion. He was noted for the completeness with which he always stated his opponents' arguments before answering them. The animosities and personalities of opposing editors interest the public but little, and affect opinion not at all.

Henry Watterson says: "A paper's strength depends upon the man who stays longest at night; the last two hours are worth all the rest." It was Mr. Delane's habit in editing the London *Times* to remain until the paper went to press.

C. A. Dana insisted that a good writer must have convictions, and that no one can do his best when writing counter to his own belief. What tells in writing is the weight, force and intensity of a man's ideas. It is not personality, but convictions. This, he said, was the secret of Horace Greeley's power. It also explained Raymond's lack of influence. The people believed that Mr. Greeley was sincere and trusted him, while Raymond was a trimmer, who, though he was an admirable expositor, and a subtle and persuasive advocate, saw both sides of a question too clearly to believe strongly in either. In former days such men as Henry George or Edward Bellamy would have been connected with a journal like the *Tribune*, but there is no place on the press for them now.

Henry Watterson says: "An editor should have strong convictions and stick to them. It will not do for a man to change about as Booth does in the cast of "Julius Cæsar," playing *Brutus* one night, *Cassius* the next, and *Antony* a third. It is only conviction that has dominant weight with the public."

In the past twenty years the American press has hardly produced a single great editor who would rank with Greeley or Bennett, Bowles or Raymond, or an editorial writer of force and convictions who has won a national reputation. There have been brilliant correspondents, like Stanley, MacGahan, G. W. Smalley, Charles Nordhoff and Julian Ralph. But the recent successes in journalism have been in the line of news-gathering, and in achievements like Stanley's search for Dr. Livingston, or the *World's* subscription for the Bartholdi statue.

A journalist must have "a nose for news," which Samuel Bowles defined as a sort of sixth sense. Most persons' likes and dislikes are matters of whim or prejudice, but an editor, apart from his own tastes or inclinations, must feel instinctively what will interest his readers. He must also be able to divine public sentiment in advance of its expression, and by anticipating it be prepared to drift with it, or to stem it.

Whitelaw Reid says: "The imperative demand of modern journalism is that if a question be sprung upon the sore-pressed writer at midnight, his paper shall next morning give it fair and intelligent discussion. It is not enough that you should know where to find things, which is about what colleges generally teach; you must know things, and know them at once. For the political writer on a great daily, nothing must

be too sudden—no strategic combination of parties, no specious platform that repudiates accepted dogmas, no professed revival of ancient faith that is really the promulgation of new and revolutionary heresy."

The editor cannot create opinion, but he can forecast the sober second-thought of the community and thus act wisely during temporary bursts of excitement. "No man is as wise as everybody," and public opinion sometimes defies forecasting, as in the case of the effect of Dewey's victory at Manila in changing American foreign policy. The editor must possess the same intuitive perception of public feeling that a great advocate like Rufus Choate manifested in dealing with juries.

This facility cannot be gained from books alone; but by mingling freely with all sorts and conditions of men, in the mart and in the courts, in clubs, on the train, and thus, by close personal contact, learning their ways and thoughts.

A clever writer in *The Outlook* speaks of the changed editorial tone of the New York press, which causes many readers to skip the leaders. The reason is that newspaper editors move in too narrow a circle, become self-sufficient, opinionated and theoretical. They miss the corrective of rubbing up against practical men whose views differ from their own. They should mingle with the world. "Whenever I change my point of view, and pass an evening at my club talking things over with a banker, a lawyer, or any man of affairs, I do my most effective editorial writing," said an editor. The country editor does not need to make this effort, but absorbs public sentiment through his skin. Prentice Mulford favors the plan proposed by

Henry J. Raymond, of an occasional turnabout in every newspaper office. "The editorial writers ought to go to reporting, and let the reporters write editorials. The editors would then get out of the narrow rut they live in and would learn something of life. Living as they do among their exchanges, relying upon reporters' work at second-hand, they are the most impracticable men on earth. Who ever saw a prominent editor in the police courts, or at the meetings of the Farmers' Club, or in the places where the fundamental and creditable things of life are actually performed?" Emerson says, in "Society and Solitude": "If you would learn to write, 'tis in the street you must learn it."

A prime cause of Mr. Greeley's great intellectual power was that, like Lincoln and Beecher, he mingled constantly with all classes, and drew inspiration direct from the popular mind and heart. He was an omnivorous reader, but he knew men as well as books. On an average, he conversed every week with a hundred persons from all parts of the country. At the same time his correspondence was immense. During his lecture trips, he visited every State in the Union. Probably no one was more familiar with the United States. The muscular vigor and freshness of Mr. Greeley's style were largely due to this constant and close contact with the plain people." He had a deep sympathy with the feelings and condition of the masses, a quick perception of their desires, and a remarkable faculty for giving voice to them. Mr. Dana said that Mr. Greeley's signed articles, and those written in the third person, were the best of his productions. Even his personal idiosyncrasies con-

tributed to the liveliness of his style, and added to the interest of the *Tribune*.

C. A. Dana, in his address on journalism at Cornell University, laid special stress upon the value of his six years' experience in Buffalo as a dry-goods clerk. He said: "It is only by being put through the mill that a man acquires the science of the world, and knows how to consider business questions of every kind." Regarding intellectual training, he said: "I never saw a newspaper man who knew too much, except those who knew too many things that were not so. I am myself a partisan of the strict, old-fashioned, classical education. The man who knows Greek and Latin, and knows it—I don't mean who has read six books of Virgil for a college examination, but the man who can pick up Virgil or Tacitus and read them without going to his dictionary; and the man who can read the 'Iliad' in Greek without boggling, and if he can read Aristotle and Plato, all the better, —that man may be trusted to edit a newspaper. But above all he should know his own language, the English language. . . . The man who is going to publish a daily manual of news and facts and ideas and truths, or even lies, in that language, should know the language thoroughly. Otherwise he may sometimes say what he does not mean. . . . The young newspaper man ought to know the practical sciences above all, especially chemistry and electricity; history he should know, too, particularly American history, the American Constitution, and constitutional law."

Samuel Bowles laid great stress upon the value of travel as training for a journalist. He thought a man should see the world and mix freely with men,

in order to rub the moss off his mind and broaden his views.

Every journalist should learn how to "dig for facts" and how to store away his information, so as to use it when required. Scrap-books, Index Rerums, and note-books all have their uses. I have found a card-index the most compact and convenient record of facts and reference. It requires little labor, is easily handled, occupies small space, and is always up to date.

A knowledge of shorthand is helpful but not indispensable. I would prefer French or German, owing to their usefulness to a modern editor. A retentive memory, trained to store and classify facts, is quite as valuable as shorthand. A writer remarks that "shorthand holds a two-edged sword. It gives the practitioner a steady income, but frequently arrests that development of mind caused by the alternative of writing well or starving. Hence there are journalists who rejoice in their faculty of stenography, and others who hug themselves because they have never possessed that sometimes fatal facility for making enough to keep the wolf from the lazy man's door."

It is surprising that more young journalists do not qualify themselves for editorial writing by the study of political economy, history, finance and social science. There is ample room in this direction for men capable of writing ably on current themes. It is easy to find men who can edit and compile news, but, as D. G. Croly once said, "The hardest place to fill is that of a good editorial writer who can be trusted to discuss the multifarious topics which come up daily for editorial judgment."

Schools of journalism have been opened in several places. At Cornell and the University of Pennsylvania there are courses of study, specially adapted to the requirements of those who propose to enter the newspaper profession. These courses supply the preliminary training which is needed by every beginner, but all editors agree that the practical experience of a newspaper office is indispensable. The standard of qualification for journalism is higher than ever before, and a capable man always has an advantage over the untrained applicant. But no one can teach journalism theoretically. It must be learned in the school of experience. Nevertheless, as a leading journalist remarks: "While no school of journalism could possibly impart that tact, that intuitive perception and judgment, that quick-witted insight into the very pith and core of a matter on which the success of newspaper conduct depends, it is a vast mistake to suppose that a profession like journalism has not its rationale, and that its facts and working are not bottomed on intelligible laws, a knowledge of which would be of great value to the practical newspaper man."

Prentice Mulford, in a lecture on "Eighteen Years in Journalism," said he began by writing his first article for the press under a pine-tree in California, and maintained that the journalist's school was the world. If he had to train a talented boy for journalism he would send him to sea before the mast, into the ranks of the army, into the backwoods with the pioneers, and among the hewers of wood and drawers of water, so that he should learn society from the foundations. In support of this opinion, he instanced

Bret Harte, Mark Twain, Joaquin Miller, and also the author of "Progress and Poverty," of whom he said: "He never went to college. It would have spoiled him." "The country printing-office," says a writer in *The Forum*, "is our only school of journalism, and its graduates are found everywhere. There is no other place where a young man can learn to be an all-round journalist."

Reporting is the corner-stone of journalism. Ability in that line should be rated above everything except administrative talent. Henry J. Raymond held that the reporter should be the best-paid member of a newspaper staff. To be a good reporter requires quick, keen and accurate observation, readiness in making acquaintances and getting information, discrimination in selecting the nub of a subject, a retentive memory and a fresh, vivid style. Some of the reports of the New York papers, notably those of *the Sun*, are models of picturesque, condensed and brilliant narration, yet they are often written by very young men.

A reporter who is painstaking and accurate, and who does not abuse their confidence, will win the respect of persons of prominence in politics and elsewhere, who will gladly give him information when he seeks it.

The prejudice against college men, which Horace Greeley voiced in his famous phrase, "Of all horned cattle deliver me from college graduates," is partly because of their conceit, but still more because of their lack of acquaintance with life. The easiest way to supply this deficiency is to practise reporting in all of its branches. The young reporter who is sent to

lectures, political meetings and scientific discussions cannot fail to gain valuable knowledge about men and affairs. It is his own fault if he is superficial. I recall with vividness my own experience as reporter and correspondent. One day I was at the Tweed trial, where leading lawyers contended before a famous judge. On other occasions I was sitting for weeks at a Methodist conference, or attending the meetings of a social science association, or reporting a great strike in the coal regions, where complex questions of the relation of capital and labor, and of corporations to the State, had to be studied. The roving correspondent is like the cultured young man of Addison's time, making the grand Continental tour. All doors fly open at the magic name of the great journal, while the stimulus of writing under pressure, on fresh and timely subjects, brings out one's best powers.

A reporter should have untiring energy and health. He must work long hours and endure exposure, lack of food, absence of sleep. He must be able to write against time under the most trying circumstances. Suavity and tact are indispensable aids to him in making acquaintances, and keenness and persistency in following up clews. A man should be as smooth as oil and as sharp as a needle, with the scent and tireless energy of a bloodhound. He must be able to write on his knees, in a rocking train or tossing ship, by the light of a smoking lantern or flickering candle, and to tell a story in clear, compact language without verbiage, so well penned that any compositor can read it. Charles Dickens was an inspired reporter. Henry M. Stanley and Archibald Forbes also showed

the traits needed for success in this field. The pages of the great papers are filled with descriptions of events that happened within a few hours, which are simply wonderful for their freshness, vividness and skill in narration. Stupidity and inaccuracy, as Charles Dudley Warner says, are the unpardonable sins in journalism. Above all things a newspaper should be interesting and its reports truthful. Therefore the young journalist should strive to be clear and exact in his statements. "The public itself and not the newspaper is the great factory of baseless rumors and untruths." The newspaper is "the great corrector of popular rumors." Accurate reporting in every department is therefore the foundation of every journalistic success. The sub-editors and the executive men who suggest topics, get up sensations, assign each reporter to the task he is best fitted for, edit the copy and write headlines, do valuable work. So do the writers who comment on the news and direct the policy of a journal. But it is the news-gatherers who make a *news* paper.

The next question to consider is whether a large or small establishment offers the best opportunity to the beginner. In the former case there are advantages in the way of discipline, wider experience, and the stimulus which springs from competing with many rivals. But on the other hand there is great division of labor; each man is limited to a certain field and tends to get in a rut; individuality, which tells for so much in journalism, is lost, and he becomes a part of a great mechanism. In a small office a beginner has to make himself generally useful. He gains a more varied experience and with it confidence and

breadth. Samuel Bowles began at sixteen, in his father's printing-office, reporting everything from a cattle-show to a college commencement, and in time he made the Springfield *Republican* a power. Prentice Mulford said: "A newspaper man's best opportunity to-day is as editor of a country newspaper. New York is swamped with clever men." Hardly a single journalist of note has come out of the great metropolitan dailies in recent years, yet scores have graduated in the mean time from smaller papers. The Springfield *Republican* has been a model training-school for newspaper men and women. Spontaneity, which on the press tells more than drill, is more apt to be developed in a small newspaper office than in a large one. The extraordinary growth of newspaper humorists, and their success in building up such papers as the *Danbury News*, *Detroit Free Press*, and *Burlington Hawkeye*, show what can be done in local fields.

While the pay of metropolitan journalists is higher than that of country editors, their expenses are far greater, and they have neither the security nor the independence of the latter. I should, therefore, say to the youth who feels within his breast the undeveloped genius of a great editor: Avoid the great cities. Be content to take any position on a small paper where you can test your skill, and just as soon as you show your hand you will be appreciated. There are watchful eyes in editorial sanctums to detect latent talent and determination to utilize it.

Henry Watterson, editor of the Louisville *Courier-Journal*, in an address on "Country Journalism," makes some judicious remarks upon the possibilities

open to the country editor who is honest, intelligent and industrious, who believes in his profession and himself. "The life of the country journalist may not—surely does not—offer to an ambitious seeker after fortune and fame the most splendid or even the most promising career in the world. It must, in the beginning, limit itself to the simple pleasures of the village, to homely joys, to small, and if it be successful, to good aspirations. But, within this abridgment, it presents a scheme of existence before which the Titans of the world of action and of thought might pause and question their destiny and themselves.

"Has the country doctor, the country preacher, each of whom may fill his sphere as grandly as though he stood in the place of what are called the greatest of God's creatures, a better opportunity to lead a noble life and leave a blessed memory behind him than the country journalist? Neither has certainly a more fruitful field of labor, because in addition to his prospect of material and professional success, the country editor may mingle in affairs without becoming a placeman. He may unite to his character of citizen that of a public instructor, in rather a small way I grant, but still according to his condition and his stature, and within the boundary of perfect usefulness and content.

"If I should be thrown out of business, and thus should be given the occasion to look about for some means of supporting my family and myself, I think the most attractive employment which could be offered me would be a tidy newspaper office in some respectable country town; and am vain enough to believe that I should not starve."

This sketch is not exaggerated, and the young journalist might well consider the advantages of at least trying this field before entering into competition with newspaper men in great cities. Mr. Howells and Mr. Howe have described in the *Century* and in *Scribner's* the varied fortunes of the country editor. It is a splendid training-school, and it offers far better opportunities than the maelstrom of metropolitan journalism.

An editor must adapt himself to his constituency. Watterson is appreciated by his Kentucky readers because they like his vigorous and breezy style. He once said to me that they had accepted views expressed in their own way which they would have rejected if put in what he called "the New England lingo."

The young journalist should learn to investigate facts and get at the truth on all questions. As Matthew Arnold says, "he should learn to see things steadily and as they are." He should possess sufficient understanding of the general principles of political and social science to be able to treat questions relating to such subjects when they come up for discussion. To be ignorant of the tariff, of the silver question, socialism, the evolution theory or the tendencies of religious philosophy would be unfortunate, to say the least.

I should say to the young journalist, as I have said to the young lawyer, don't be a "funny man," but exercise your wit and humor in advocacy of some great principle, or in attacking some great wrong. The writer who merely raises a laugh seldom exerts much influence.

A journalist should study the art of putting things.

Franklin's advice in reference to the best methods of persuasion, which I have already cited, deserves attention. The political writings of De Foe, Swift, Cobbett, Sidney Smith, Tom Paine, and other famous pamphleteers should be carefully studied. W. O. Bartlett, an exceptionally able writer, said that it is the power to discern what is interesting that makes a journalist. He thought the colloquial style best, with short sentences, and but one thought in an editorial.

Samuel Bowles wrote to a young journalist who asked his counsel: "I can hardly give you, you hardly need, advice as to your style. What it lacks essentially is ease and fluency, and that can only come from continued experience and culture. Sometimes your long sentences are awkward, and would be better if divided. That is about all I can say in the way of criticism. You always have the meat of fact and opinion, and you go direct to your subject. These are the essentials after all." Mr. Dana told a young reporter never to write for practice, but always, if possible, for publication.

In journalism a preference is given to young men. Any one can try his hand at reporting or sketch-writing, and if he manifests energy and ability his articles will be accepted. The pay will be moderate. It may be hard to get ahead. Still, most successful newspaper men have started in this way, and plenty of bright men earn salaries far beyond what they could obtain in business or in another profession.

Most of the leading American editors began at the foot of the ladder. Bennett, Greeley, Dana, Raymond, Bowles, Watterson, Halstead, Whitelaw Reid,

Horace White, Godkin, Medill, John Holmes, the two Pulitzers, all won their success by hard labor and patient waiting.

After a man has passed his youth and is approaching middle age, he finds the chances of advancement small, and the pay inadequate for the needs of a family. Newspaper work is exhausting; men get into a rut and find themselves displaced by younger rivals; salaries are ruthlessly "cut." One's past performance, however brilliant, is forgotten, and experienced and able men are shoved aside, because their places can be filled at less cost. The staff of the great metropolitan journal is mostly made up of young men. I have often said to editors, and they have assented: "Twenty years' experience enables me to charge full fees in my profession as a sanitary engineer, but if I should apply at a newspaper office for a place, with the same experience in newspaper work that I have had in engineering, you would glance at my gray hairs and say 'No.'" Furthermore, the press to-day is simply an agency for making money. Counting-room interests control. It thus appears that while journalism is one of the easiest occupations to get started in, and one of the most fascinating pursuits, it is not attractive as a permanent calling. Clergymen, lawyers, doctors and engineers stick to their callings, but the list of men who have gone out of journalism is long, and the profession is the worse for this fact.

A writer in *The Forum* for April, 1898, gives the average pay of newspaper men throughout the United States. It is surprisingly low. A New York reporter earns from $12 to $25 a week, a sub-editor from $20

to $40, editorial writers from $50 to $75. Special correspondents, book-reviewers, art-critics and managing editors may earn more than these sums, but the latter positions are the plums of the profession, and few in number. Brilliant and industrious space-writers often make handsome incomes, but they drift into magazine-work or story-writing. None of these salaries compare with the earnings of men of equal standing in law, medicine or engineering. Newspaper men usually work hard and die poor.

Should an editor enter public life? My answer would be, No! His usefulness in one occupation will be hindered by adopting the other. Henry Watterson's views on this subject, expressed when he refused to accept the nomination to the United States Senate, may be quoted: "The example of two eminent members of our profession, whose contentions in the field of practical politics embittered their lives, dwarfed their usefulness, and tarnished their fame, and the tragic fate which each in his death encountered, made an early and deep impression upon my mind. My experience in Congress was a verification of my pre-conceptions and predilections. For all the good I was able to do I might as well have stayed at home. I think with Philip Van Artevelde, that 'men in their places are the men who stand.'

"I never knew what pure selfishness means and squalid dependence is, until I found myself an atom of that class in which, more than any other on earth, it is every man for himself and the devil take the hindmost."

CHAPTER XVII.

THE LEGAL PROFESSION.

Its Popularity—A Lawyer's Daily Duties—How to Study Law—Breadth of Culture Indispensable—Where to Start—Work, the Secret of Success—How to Deal with Judges and Juries—Advice from Veterans—Rules of Conduct—Fees—Law and Politics.

No calling is more popular than the practice of the law. By it many attain fame and fortune. It was the gateway through which Webster, Clay, Seward, Lincoln, Chase, Tilden, Evarts and other famous Americans entered public life. Hence the profession is overcrowded, and the competition is intense. One-fourth of the graduates of Yale and Harvard select the legal profession. Everywhere the law-schools are filled. The study of law fascinates. As Charles Sumner said: "It is profitable as a mental discipline, even if one does not intend to practise it." Yet few lawyers attain lasting fame. A writer in the Chicago *Tribune* challenges any one to name six eminent lawyers whose reputation has lasted a century. Those who gain somewhat of immortality do so by virtue of being judges, statesmen, or authors. Eldon is an example of the first class; Webster of the second; Coke, Blackstone, Kent and Story of the third; while Bacon belongs to all three. Erskine is the only example of an enduring fame won by an advocate, unless Rufus Choate may be coupled with him.

After a man begins the pursuit of law he finds, as W. H. Seward humorously said, "She is coy and difficult to overtake." A briefless barrister is a type of forlorn failure; a successful one may be the slave of toil, but the excitement and the fees balance the labor. Lawyers do not require any capital but their skill and industry, they earn sufficient to live as well as business men, and they do not run the risk of losses which the latter do, while they have far less worry—and care.

While the legal profession is conservative, yet its great lights have always led the van of progress. Our history would be a poor tale without the great advocates. A great lawyer is a great man. Theodore Parker, and in no voice of flattery, called Daniel Webster "my king."

The daily routine of a lawyer's office is concerned with many things beside litigation. All sorts of services besides going to court have to be performed for clients; for example, searching real-estate titles, drawing contracts, leases and other papers, carrying on negotiations to avoid future trouble. Then there are corporations to be formed, syndicates to be planned and advised, wills and mortgages to be drawn, assignments by bankrupt firms. One set of clerks will be occupied in preparing and serving papers, and will attend to motions in the courts; others will manage the real-estate business of the office; one clerk will search authorities after the principal has indicated the general lines that he wishes investigated. Thus all work together, so that a large law-office is quite a business machine. Something more than mere book-knowledge is therefore requisite in the beginner, and

the more adaptability he has, the more useful he can make himself. As great artists in the past allotted minor details to their assistants, to one a part of a figure, to another a tree or drapery, and to a third a background; or as a great architect makes a general design and leaves it to his draughtsmen to work out the details, so in an important lawsuit the junior clerk can make himself useful and gain valuable experience by attending to the preparation of the case.

The public imagine that court practice is the chief occupation of lawyers. This is a mistake. Many lawyers consider the time spent in court as of least importance. They deplore the great waste of time caused by delays. The most lucrative work is that of counselling clients and drawing papers in one's office. Large firms and corporations frequently engage a lawyer's whole time, and his most valuable service is trying to avoid litigation.

A veteran lawyer describes the old-time methods of study in the old-fashioned office. The lawyer sat in the same room with his young men, or at farthest in the next; all studied hard when he was by, and engaged in a good deal of desultory talk when he was out. The copying by hand of the various legal papers which impressed their forms upon the mind; the knowing all about their master's cases and going to court punctually to hear him speak; the firm conviction that he was a head and shoulders taller than anybody else; the friendly but informal examination, for which, as no one knew when it would happen, there could be no cramming—all these, as Thackeray says, are "pleasant memories and no mistake."

Charles O'Conor is an example of a great lawyer

who was taught in such a school. In 1820 he began to study with a West Indian who was intemperate. O'Conor soon left him to enter an office with one Fay, who knew little law but who had some law-books, which O'Conor studied assiduously. He was admitted to the bar in 1824. Five years later he made an argument in the Diver *vs.* McLaughlin case, which is copied in Kent's "Commentaries" and in other authorities.

Ex-President Woolsey says: "When Roman law was reaching its mature form, distinguished lawyers received students into their houses, not for pay, but to train those who had no law-books." Cicero was thus placed by his father with Q. Muncius Scævola. When Roman law under the emperors became a complicated system, schools were established for its study. In Justinian's time, there was one law-school at Rome and two at Constantinople. The modern university system began with the revised study of law at Bologna, in the twelfth century. In the seventeenth century, the English Inns of Court provided societies into which young men desiring to become lawyers could be admitted for study. In the United States, as with theology and medicine, law-students had recourse to private instructors. A law-school was founded at Litchfield, Conn., in 1784, from which many prominent lawyers graduated.

A writer in *The Nation* asserts: "In the opportunities of obtaining a good legal education we long ago took the lead, and American lawyers in the Harvard and Yale and Columbia law-schools have a set of institutions which are fair subjects for boasting."

Of late there has been a steady advance in the re-

quirements for admission to law-schools. Students were formerly received at Columbia Law-School who could not have entered the freshman class in any first-class college. In consequence of the greater requirements the attendance declined from 625 in 1890–91 to 270 in 1893. This change was in the interest both of the public and of the legal profession. The requirements are still not high, and any graduate of a high school can easily meet them. On the other hand, after Professor Langdell introduced the scientific study of law at Harvard the attendance rose from 154 students in 1870 to 404 in 1893, showing that there is a demand for the best obtainable training.

In New York State a candidate for admission to the bar must serve for three years in a practising attorney's office. A deduction of one year is made if the student is a college graduate, while another year may be spent at a law-school instead of in an office.

Professor Dicey insists that without some instruction in legal principles the law is rarely more than half learned, even in the course of the most active practice. Chief Justice Waite declared that "the time has gone by when an eminent lawyer in full practice could take a class of students into his office and become their teacher. Law-schools are now a necessity."

The Columbia College Law-School may be taken as a type. The course of study occupies two years. The first year is occupied in the study of general commentaries upon municipal law, law of contracts and of real estate. The curriculum of the second year includes the study of equity, jurisprudence, commercial and admiralty law, criminal law, evidence, pleading and practice. The students are required to

draw pleadings and contracts, while courts are held every week. There are three students' clubs, at which cases are argued and legal dissertations read. Any person of good moral character is admitted. The tuition fees are $100 *per annum*, and diploma fees $5. A student who attends for eighteen months is admitted to the bar without further examination.

A lawyer asserts that "the ordinary work of the profession makes very slender demands on either intellectual capacity or learning. There are few really good lawyers who know the law, and still fewer good speakers. The great run of lawyers are content to scramble on with mouthfuls of law picked up from day to day as occasion requires, trusting to text-books and luck for getting up the necessary information when a call for advice happens to be made."

This, however, can be said of every calling. But few are thorough; the many are superficial and shiftless.

Formerly it required seven years' study to gain admission to the New York bar, unless one had graduated from a law-school. Gradually greater laxity crept in, and hundreds of clerks and copyists were admitted to practice. In 1871 the official examiners rejected twenty-one out of thirty-one applicants, and were impressed with the utter incompetency of those rejected. Since then a higher standard has been enforced.

Legal studies, if not supplemented by broad culture, have a narrowing effect. To be merely a lawyer is not enough. The law student should ever bear in mind the noble words of Bolingbroke: "A lawyer now is nothing more; I speak of ninety-nine in a hundred at least. But there have been lawyers

that were orators, philosophers, historians; there have been Bacons and Clarendons. There will be none such any more, till, in some better age, true ambition or the love of fame prevails over avarice; and till men find leisure and encouragement to prepare themselves for the exercise of this profession by climbing up the vantage-ground, so my Lord Bacon calls it, of science, instead of grovelling all their lives below, in a mean but gainful application to all the little arts of chicane."

It is well to have a hobby, and take an interest in some avocation which will rest and refresh the mind.

Provost S. T. Wallis, in an address to the law-class of the University of Maryland, showed the folly of the opinion that a lawyer should read nothing but law. "History has no record of a great advocate whose genius and culture were not above his office." While he favored the mixed system of academical and office instruction, he preferred the latter. He dissented from Sir Roundell Palmer, as to "All lecture," and concurred with Sir John Coleridge, that "to teach English law by lectures alone is a pure delusion. The tendency of the office," he says, "to sharpen and render men technical must be met and counteracted by that larger exercise of thought which expands the intellect."

Chief Justice Russell considers a university training indispensable for a lawyer. This is the English view. On the other hand, Judge O. W. Holmes of Massachusetts thinks that for a "fighting success" a university education is not essential. He even hints that it may be an impediment. "If a young man," he says, "can afford two or even three years in a law-

school, he will not regret a month of it when he comes to practise." Of the 289 lawyers in Congress in 1897, 131 were college graduates, 48 had spent some time at a college or a professional school, while 110 had received only a common-school education.

A prominent New York lawyer says: "One needs a broad foundation of general knowledge nowadays to succeed at the bar. The men who enter college and the law-school usually surpass those who do not enjoy such advantages. The latter become justices of the peace or small conveyancers. They are content with petty fees because they are not fitted for anything better."

The career of Warrington in "Pendennis" describes the experience of hundreds of budding attorneys who earn a livelihood by literary work while waiting for clients.

A prominent New Yorker advised his son, when admitted to the bar, not to take a position offered him by a law-firm, but to start for himself. He said: "I was afraid that he would depend upon other people. I thought he would gain more self-reliance if on his own hook." In the same spirit Edward Everett Hale said: "When my son comes out of Harvard, he must go a thousand miles from Boston, to escape from his father's shadow."

If it is a matter of choice, it is better for a beginner to enter a medium-sized office than a large one. In one case the student can obtain an insight into details, while in the other he must be ignorant of much that is going on around him and will gain far less information and experience.

The country lawyer studies hard, works slower but

much longer hours than his city brother, and earns smaller fees. He is filled with envy and astonishment at the incomes reported of the great "legal lights," but he forgets how large a share of these incomes goes for office expenses. Country practice sharpens the wits, but often makes men narrow. Such a lawyer as Judge Noah Davis comes to New York and finds himself at once the peer of other lawyers, but not every man can meet metropolitan demands. Petty squabbles about fence lines and trespassing are hardly fit to make a great legal luminary. Yet there are "princes of pettifoggers" in New York as well as in smaller places. It was the country that developed Lincoln, Seward, Clay and Chase, and it would be hard to match them in any court in the land.

A well-known lawyer, discussing the prospects of young attorneys, said the first choice of work was often what interfered with their success. "In their anxiety to make a start they take up collection and similar lines of business, and never become anything more. If a man is compelled to do whatever offers, there is no help for him. I would advise any young lawyer to wait as long as possible before he engages in work of this kind."

Mr. Lincoln, when asked as to the best mode of studying law, answered sententiously: "Get the books and read them carefully. Begin with Blackstone, and after reading it carefully through, say twice, take up Chitty's 'Pleading,' Greenleaf's 'Evidence,' and Story's 'Equity' in succession. Work, work, work is the main thing." A. J. Vanderpoel considered that hard work was the main essential.

The secret of his own career lay simply in learning all that was to be learned of each case before it came to trial. The following description shows with what vast toil Rufus Choate won his great honors at the bar. "He died daily, retiring to bed exhausted, under great nervous prostration, with headache. Yet he would rise early, often long before daylight, and take a light breakfast before his family or business claimed his attention. His clients, the courts and classics compelled long days and short nights. I called upon him once in the afternoon, and asked him how early the next morning I could confer with him upon a matter I wished to investigate during the evening. 'As early as you please, sir; I shall be up.' 'Do you mean before breakfast, Mr. Choate?' 'Before light, if you wish.' I called at the earliest dawn, and found him at his standing table, with a shade over his eyes, under a brilliant light, pressing forward some treatise upon Greek literature, which he said he hoped to live long enough to give to the public. The night had restored his wearied powers; he was elastic, as cheery and brilliant as the stars I had left shining above us."

A Boston lawyer who entered more cases for trial in that city than any of his rivals, invariably reached his office at 7:30 A.M. He was once called upon at that hour by A. T. Stewart, who had come to Boston to transact some law business, and had brought an introduction to three Boston lawyers. As the other two were not to be found, and as the matter needed immediate attention, Mr. Stewart called upon him and said he would be pleased if Mr. —— would take the case. This was done, and Mr. Stew-

art remained this lawyer's client until his own death.

I have watched the early career of a number of New York lawyers. Many of them while acting as clerks made the acquaintance of clients who either gave them small cases which were not worth the attention of the firm, or retained them out of personal liking. Half a dozen students in one office have succeeded on their own account, while one of them has since become a partner of his former employer. Often a young man wins his professional spurs by his zeal and energy in some special case. Walter S. Logan worked up the details of the Madame Jumel case for Charles O'Conor. Albert Stickney was John T. Parsons' chief aid in the Barnard and Cardoza impeachment cases. Horace E. Deming gained reputation by his valuable work for municipal reform in Brooklyn. A. B. Whitney, through his active share in the tariff-reform movement, was made Assistant Attorney-General of the United States. I well remember William C. Whitney when he began practice. He showed the same courtesy, kindness and ability then which have since made him popular. Twenty years after these early days I happened to meet him in the Lawyers' Club. He instantly called me by name, showing his extraordinary memory for faces and names.

A curious anecdote is worth citing as illustrating the effect of painstaking effort in preparing a case. When Senator Morton was a young lawyer, he had a case the success of which depended upon a single authority, which he could not find, even after the most earnest search. The case was set for the next morn-

ing. That night in a dream the volume, the number of the page, and even the opening sentence came to him. He hurriedly dressed and walked to his office, where he found the decision just as presented in his dream. Before noon he had won his case. This phenomenon is not an uncommon one and may be explained psychologically. Had the future great war governor not striven so hard in search of his authorities, his brain would not have been stimulated to such activity that his memory acted in his sleep.

Sir Alexander Cockburn used to tell how, while he was Solicitor-General, he brought home the famous Rugely murder to the guilty party. Palmer, the murderer, was an expert chemist, and had, as he thought, completely covered up the traces of his poisonings. Sir Alexander was convinced of his guilt, and for weeks studied, day and night, the effects of various poisons on the human system. He then called together a council of medical friends and made them examine him as to his knowledge of toxicology, and it was the knowledge of this subject that enabled him to bring the murderer to the gallows. Palmer remarked shortly before his execution that nothing but the skill of the Solicitor-General could have proved him guilty.

Eloquence alone will not make a successful advocate, and the most brilliant debater may fail at the law. In every step of advancement, from copyist to leading counsel, untiring and constant labor is demanded. Look at Evarts, O'Conor and Choate. See how they toiled over cases, working over the midnight lamp, and then sitting all day in ill-ventilated courtrooms trying cases. Nothing but its long summer

vacation and Saturday holidays saves the profession from physical break-down.

Erskine thus describes the requisites of success at the bar: "Be steady in your exertions, read your briefs thoroughly, let your arguments be learned, and your speech to juries be animated." A famous lawyer says that his success has been largely due to cultivating a knowledge of ethical principles, which is the basis of all law. A man of this quality seldom errs in his judgment.

Self-possession and readiness are invaluable in dealing with judges and juries. While Theophilus Parsons was arguing a case, an opponent took a piece of chalk and wrote upon Parsons' hat: "This is the hat of a damned rascal." Parsons, turning to the bench, said: "I crave the protection of the court. Brother Sullivan has been stealing my hat and writing his own name upon it."

Sir Alexander Cockburn, when an unknown barrister, defended a man charged with the killing of a noted duelist who had forced a quarrel on him. Cockburn addressed the jury briefly and to the point. In closing he said: "Gentlemen, my learned friend has told you that this is murder. I know that it is no murder, and you know that it is no murder." The jury found the prisoner not guilty.

Sir Samuel Martin bore in mind the golden rule not to perplex the jury with too many details, but to put his best point to them, and to put it strongly. As a judge he likewise sought to reduce matters to a small compass. After a mass of contradictory evidence and long speeches in a case, he summed up as follows: "Gentlemen of the jury, you have heard the

evidence and the speeches of the learned counsel. If you believe the old woman in red, you will find the prisoner guilty; if you do not believe her, you will find the prisoner not guilty."

Of Sergeant Parry, a famous English advocate, Mr. Smalley writes: "If he did not know something personally of each one of the twelve men he set himself to convince or cajole, he worked on a set of general principles, the result of vast experience, and he was seldom at fault. Tact he had in a large measure: the tact which consisted in not pressing a point where he saw the judge or jury were against him; in not bullying witnesses; in not wrangling with the bench or with his 'friend' on the other side; above all, in not running counter to any sympathies or antipathies of the jury, and in never risking a verdict for the sake of display. The first time you saw him you thought you had at last found a lawyer who really had equally at heart the interests of his client and the interests of justice. By the time you had seen him go through the same performance in half a dozen cases, good and bad, you had to relinquish this pleasing delusion, for in every case he identified himself in just the same way with the merits or demerits of the side he represented."

A lawyer was once retained as associate counsel in an important case. He sat in court for nearly two days perfectly silent, until his client impatiently asked the other lawyer: "What in thunder is D—— doing to earn his $2,000 fee?" Presently, when certain evidence was submitted, the associate counsel rose and objected. "On what grounds?" asked the judge. The associate counsel briefly stated them. The judge dis-

missed the case, which entirely hinged on the principle of law which he had laid down. When the client paid the $2,000 fee he said: "I now see the value of patience."

Mr. Speed says of Lincoln's early law career: "After his first year he was acknowledged to be among the best lawyers in the State. His analytical powers were marvellous. He always resolved every question into its primary elements, and gave up every point on his own side that did not seem invulnerable. One would think to hear him argue a case in court he was giving his case away. He would concede point after point to his adversary until it would seem his case was conceded entirely away. But he always reserved a point upon which he claimed a decision in his favor, and his concessions magnified the strength of his claim. He rarely failed to gain his cases in court."

Sergeant Ballantine, who had an extensive criminal practice, and whose forte was cross-examination, seldom bullied a hostile witness, but insinuatingly induced him to believe that he was in the hands of a friend, and then gradually led him into a trap.

In collecting, sifting and preparing evidence there is room for the exercise of peculiar qualities. In cross-examining witnesses one should be alert, shrewd and persistent, but not too pressing. Knowledge of human nature is invaluable in this work. In addressing a jury much depends upon personal manner; therefore cultivate a graceful, easy bearing, unfailing courtesy and an insinuating address. By simply assuming a tone that implies that certain disputed facts are absolutely true, one can exert great influence.

The day has gone by for the old-fashioned oratorical displays. Neither judges nor juries, in the large cities at least, care to listen to them. The best lawyers cultivate a conversational tone in addressing a jury, and aim simply to be clear and exact in presenting a point of law to a judge.

Judges are often prejudiced and pragmatical, and a lawyer needs to exercise patience and self-control before them. A scientific expert whom I once challenged to write a book on electricity which a child could understand said: "If I have been able to make a judge on the bench comprehend a scientific principle, I think I can make it clear to children."

I have been interested in gathering the suggestions made by leaders of the bar to graduating classes at the law-schools. Professor Dwight urged his students to secure mental discipline, together with wide and deep learning. They should, he said, cultivate vivacity of spirit, and endeavor to gain the power of simple and clear exposition, so that the most unlettered juryman might understand them. The art of making useful acquaintances and holding them was not always understood by young practitioners.

Charles O'Conor laid special stress on the importance of securing a perfect knowledge of all the facts in every case. He said: "A knowledge of received principles is indeed necessary; but if a distinction can be imagined between two things, a precise knowledge of the facts is still more needful. The acquisition of science demands only common attention and common sense, and may be the harmonious result of years of pure study along consistent lines of thought. But the readiness of the swordsman, and the acuteness

of the practical detective, are tasked in the efforts sometimes needed to acquire a perfect knowledge of the numerous and complicated facts of a particular case."

James W. Gerard, in addressing the law-students of New York University, said: "The profession requires all the student's time and attention. Solid reading develops the mind, but light literature dulls, and amusements lead to a life of ease and inactivity. There is plenty of room for beginners who are ambitious, self-reliant and pushing. Two-thirds of New York lawyers are dilettanti. The best lawyers come from out of town. Great lawyers seldom have had great lawyers as their sons. Necessity makes the lawyer in almost every case." He advised young men to be courteous to clients, witnesses, judge and jury, to make all the acquaintances they could, and cultivate self-reliance and ease in speaking.

Justice Miller of the United States Supreme Court, in addressing the Iowa Bar Association, laid great stress upon the labor needed to gain success at the bar. "The practice of law," he says, "is an art, and besides possessing a sound judgment, a clear head and well-developed reasoning powers, these faculties must be cultivated by the severest training. It is a very common error, when a lawyer has adroitly made an unwilling witness tell the truth, or, more frequently, when he has made a telling argument to court or jury, delivered with a captivating ease and grace, for the ordinary listener to imagine that it cost no labor or trouble. But the experienced opponent, or the observing judge, could see without difficulty that the apparently artless impromptu address was the perfec-

tion of art itself, concealing the long and laborious study previously given to the case and careful systematic mode of presenting it, determined on before the orator had opened his mouth. All this is the result of training, of constant and thoughtful criticism on your own style, of careful preparation for every occasion, of a review, after the effort is over, of the manner in which it has been made, and a considerate resolution to profit in future by any failure or defects that may be discovered.

When Chancellor Kent, then a young country lawyer, applied to Alexander Hamilton and John Jay for advice about his future, he was told: "Go to the civil law. Read deeper than we have had the time to do. There is a great day coming in America for lawyers."

Webster had a wonderful instinct for grasping the heart of a question, and a native capacity for close logical reasoning and for telling retort. These faculties were developed by arduous labor and careful study of his opponents. While a law-student in Boston he laboriously made abstracts from the Latin and Norman-French pleadings in Saunders' Reports, and spent laborious nights and days over Bacon, Puffendorf, and Raceus, thus laying the foundation of the legal lore which he afterward displayed. He said to Senator Morrill: "I don't pretend to be inspired. I bring nothing without labor."

Appearances count for much in every calling. A well-furnished office, like a neatly engrossed document or tasteful letter-head, gives a client or customer an impression of prosperity. General Foster once drew up a contract for an Indiana railroad on an ordinary

letter-sheet, for which he charged $250. As the company growled, he told them to try a certain high-priced lawyer next time. They did so. The other lawyer borrowed from Foster the copy of the old contract. He had it neatly engrossed and charged $2,500. The company felt satisfied that they had a contract that would hold water, and paid his bill without a murmur.

A lawyer should be deliberate and not give hasty opinions. Let him say to his client: "If you will call to-morrow, I will state my conclusions in the matter."

A well-trained lawyer should know as if by instinct what is the law in a given case. He decides first in his own mind what is right; in the main the law should agree with this. He then finds decisions to confirm his first opinion. This was the method of Chief Justice Marshall, who could write out his opinion in a case and hand it to Story, with the remark: "That is the law; now find the decisions to sustain it."

To every bright young lawyer I would say, with Tom Corwin, "Don't be funny." Never yield to the temptation to be a wit, or to become a brilliant after-dinner speaker. Great reputations are not made in that way. The world may laugh at the jester, but it does not "tie to him" as it does to serious-minded men. Lincoln's little stories were admired not merely for their humor, but for their profound wisdom. They did not detract from his reputation for seriousness. Garfield once in early life was tempted to make humorous speeches. He quickly saw it wouldn't do, and avoided the pit into which so many brilliant men have fallen.

Every professional man should cultivate common sense and avoid technical views. S. J. Tilden, having been consulted by Martin Van Buren in relation to his will, said: "It is not well to be wiser than events, and it would be foolish to trust grandchildren we do not know and distrust the children whom we do know." The following week he received a message from Mr. Van Buren, saying that he had stricken out all the elaborate provisions of the will, and had determined to rely on the laws of the country and the laws of nature. Yet Mr. Tilden's own will, like that of many other famous lawyers, was successfully contested after his death.

It is never wise to make low charges. Sometimes a client may object to a large fee, but usually the worth of your service will be rated by the value you put upon it. Above all things never give free advice to any one.

Samuel J. Tilden, who had an immense practice, as a rule charged very moderately. He also was strongly opposed to contingent fees. Henry L. Clinton received $75,000 in the Vanderbilt will case, and Scott Lord $100,000. Judge Comstock charged $50,000. Clarkson N. Potter received $100,000 in the Canandaigua Railway foreclosure suit. Colonel Ingersoll was paid the same amount in the Star Route case. It is reported that Charles O'Conor received $75,000 in the Jumel will case, and $100,000 in the Parish will case.

Erskine's income when leader of the English bar never exceeded $60,000. The highest fee he ever received for a single case was $25,000. Sir James Scarlett had about the same income. Sergeant Ballantine

received from the government a very large fee for going to Calcutta to try a murder case, but it was mostly consumed in expenses.

International lawyers are well paid. John W. Foster received $100,000 from the Chinese government at the time of the Corean difficulty. E. J. Phelps and James C. Carter have also earned large fees.

Those were halcyon days for lawyers in New York City when the Surrogate could divide a disputed estate among the gentlemen of the bar, leaving the litigants nothing. In the Taylor will case the lawyers got all the property, and the widow had to sell her clothes. In the Hardin will case John K. Porter received about $28,000. George Ticknor Curtis had such a big bill in an India-rubber case that he charged $1,000 for making it out. Many big fees have been received by patent lawyers. In the vulcanite rubber, barbed iron fence, nickel plating, burglar alarm, sewing machine, and other patent cases, fortunes were paid to lawyers. In such cases the labors of lawyers are enormous, the responsibility is great, and the pay appropriately large.

The temptation to a lawyer to take office is hard to resist. Daniel Webster, when a struggling law-student, was offered a $1,500 clerkship. His father urged him to accept it, but fortunately he declined it, and thus was saved from what has become the ruin of many young men.

Chauncey Depew says: "The duty of a lawyer to his profession and the State compels him to be a politician, but until success is assured he cannot be an office-holder. His training fits him to educate public sentiment, but he cannot enter public life with-

out losing his practice. Many a young man has gone to the Legislature expecting to find, by the acquaintance and reputation it gives, a speedy road to clients and income, and has discovered that he has permanently lost both."

Nearly one-fourth of the members of the House of Commons are lawyers. The United States Congress has an equally large proportion of lawyers. In a recent session of the New York Legislature thirty-three out of one hundred and twenty-eight members belonged to the legal profession.

CHAPTER XVIII.

THE ART OF PUBLIC SPEAKING.

Practice Makes Perfect—Use of the Voice—Condensed Language—Wendell Phillips—Skill in Debate—Webster's Mode of Preparation—John Bright and Gambetta—Gesture—Gladstone—Bismarck—Emerson—Matthew Arnold—Don't Be Acrimonious—Reading Manuscript—Persuasiveness.

To be able to think and talk on one's feet is an invaluable accomplishment. Certain persons contend that the orator's influence is no longer to be compared with that of the printed page. The achievements of Gladstone, Gambetta, Castelar, Beecher, Wendell Phillips and Lincoln refute this statement.

The lawyer, clergyman and politician of necessity should be good speakers, yet many of them are lamentably deficient in the essentials of the art. It is strange, therefore, that public speaking is so little practised nowadays by young Americans.

While great orators possess special aptitude for public speaking, yet practice and training are needed to develop even exceptional talent. Demosthenes' struggles to overcome his vocal deficiencies might be capped by a score of modern instances. Daniel Webster was so gawky and timid at Exeter that in spite of every encouragement he was afraid to practise declamation. He said to a young clergyman: "There is no such thing as extemporaneous eloquence." Peter Harvey says Webster's speech in reply to

Hayne was substantially prepared months before its delivery. "If Hayne had tried," Webster said, "to make a speech to fit my notes, he could not have hit it better. No man is inspired by the occasion. I never was."

Naturally the first thing for a speaker to learn is how to use his voice.

Dr. A. Riant, in "Hygiène de l'Orateur," gives many useful suggestions touching breathing, intonation, attitude, gesture, and what is best for the speaker to do before, after and while speaking, to insure the least physical effort.

Charles Kingsley, who stammered badly, gave these sensible suggestions for its cure: "Open your mouth. Take full breaths and plenty of them. Mind your stops. Keep your tongue quiet. Keep your upper lip down, and use your lower lip. Read aloud. Read and speak slow, slow, slow."

Mr. Osgood, a writer on elocution, thus characterizes the common defects in public speakers; the "throat clutch," the "jaw clinch," the "sullen drone," the "despondent tone." These are all due to lack of training. Mr. Osgood adds: "The educated man or woman who has and persists in an elocutionary evil, obviously remediable, should suffer the same penalty that follows the employment of gross errors of grammar or of rhetoric."

A person who wishes to be heard can hardly speak too slowly. Mr. Bright said that nothing had cost him more trouble than to learn to speak slowly. A clear, deliberate utterance of every syllable, with pauses to mark the stops at the end of each sentence, does not produce the effect of tediousness, but the reverse.

Henry Ward Beecher spoke very distinctly. I have heard a clergyman put a whole sermon into his pronunciation of the word *dam-na-tion.*

John Bright remarked that clear and distinct enunciation was of great importance. Mr. Bright's own speeches were an example of this. Gladstone had admirable clearness of pronunciation and modulation.

A writer in *Nature* says: "In singing, the musical note is predominant; in speaking, it is secondary and subsidiary to the words, but it still exists. An appreciation of this fact is of the greatest value. Many speakers drop their voices with a descending inflection, and from want of musical ear fail to raise them again; others err from excess of noise."

Here are some simple rules: Know exactly what you intend to say. Endeavor to forget yourself. Consider yourself one of your audience. Be natural and unaffected.

The annexed letter, which I received from Wendell Phillips, contains valuable advice to young men about public speaking:

"April, '68.

"DEAR SIR:—Your note came while I was out West. I hasten to reply now I'm at home. I think practice with all kinds of audiences the best teacher you can have. Think out your subject carefully, read all you can relative thereto, fill your mind, and then talk simply and naturally to an audience. Forget altogether that you are going to make a speech or that you are making one. Absorb yourself into the idea that you are to strike a blow, carry out a purpose, effect an object, impress an idea, recommend a plan. Then, hav-

ing forgotten yourself, you will be likelier to do your best for your purpose. Study the class of books your mind likes; when you go outside of this rule, study those which give you facts on your chosen subjects, and those which you find most suggestive. Remember to talk up to your audience, not down to it. The commonest audience can relish the best thing you can say, if you know how to say it properly. Your discipline heretofore [as a journalist], if you continue it, is better than college, especially at your age.

"Be simple, be in earnest, and you will not fail to reach the masses, especially if your heart is large enough to receive all truths and all struggles. God speed you. WENDELL PHILLIPS."

Every speaker should study to express himself in a clear, terse and nervous style. Two words are always better than three, and all qualifying epithets should, so far as possible, be omitted. Webster's speeches and Lincoln's Gettysburg address are good models to follow. It will be found excellent practice to analyze the great masters of style and try to improve on their language. There is no better method than to give the pith of a long statement clearly, yet in the fewest possible words. The narrative portions of the Bible are admirable examples of compactness and simplicity. It is rare that a single word can be cut out without loss. Most lawyers are excessively diffuse and wordy. They waste time over trifles, instead of emphasizing the vital points of a case and hammering them into the minds of the jurors, as Choate did, by constant yet varied repetition. When a lawyer boasts that he spoke for three days in a cer-

tain case and that the testimony occupied four thousand printed pages, one may feel sure that his arguments might all have been stated in two hours or possibly less, and the essential facts of the case brought out in a tithe of the time.

G. W. Smalley summed up Mr. Gladstone's powers as consisting in "lucidity" and "strength of statement." He could state a case better than any man in England. He had great copiousness and fluency, but his manner was labored and his gesture somewhat ungainly and violent. No contemporary Englishman has spoken so well, on such a variety of subjects. He once spoke for an hour on the Budget, and without a word from the Opposition the House of Commons voted the entire eleven million pounds asked.

Sir Stafford Northcote, who often crossed swords in debate with Gladstone, possessed immense knowledge and admirable readiness, and was always listened to with attention. Of him Smalley says: "No facts or arguments suddenly thrown at him seemed to disconcert him. However weak his own case might seem, his ingenuity could always strengthen it. However powerfully the hostile case had been presented, he never failed to find weak places in it and to break it down by a succession of well-planted criticisms, each apparently small, but damaging when taken all together. His fluent grace was only equalled by the unfailing skill with which he shunned dangerous ground, and put his propositions in a form which made it difficult to contradict them. He had the art of nibbling an argument away, admitting a little in order to evade or overthrow the rest."

John B. Gough defined eloquence as the art of com-

municating feeling. He warned against the danger of excess of action, in spite of Demosthenes' dictum, and cited Massillon and Wendell Phillips as great orators who used comparatively no gestures. He said the old English divines must have possessed the power of interesting, when they could preach four hours on a stretch. The true orator must forget self. He must transmit light, like a crystal, without suggesting a thought of the medium.

A speaker should never underrate his audience. Parton said: "In lecturing you must talk your best. An angel from heaven would be appreciated by an American audience." Wendell Phillips said the same thing. Beecher, Phillips Brooks, Curtis and Chapin, all gave their best to their hearers and found them receptive. So did Lincoln.

The enormous labor which Dickens underwent to qualify himself to read his own works shows the price of success in this field. Charles F. Adams said: "A real orator is the most artificial product of human education." Speaking of Edwin Burke, another writer says: "Never for a moment did he trust to his genius. See him at the top of his high fame, elaborating every speech. He wrote every sentence with the most studious and exhaustive care. He would have twelve different proofs of his 'Reflections on the French Revolution,' before he would allow it to go to press, and even then he watched every page with a vigilant eye, as if his very existence depended on faultless accuracy of statement and style." Robert C. Winthrop tells how Webster prepared one of his great speeches. After an evening spent at a good dinner and receiving visitors he went to bed, leaving

orders to be called at 2 A.M. Then with freshened mind and body he prepared his great argument by candle-light. Other men would have staid up all night and been fagged out in consequence. But Webster knew the value of even a brief rest.

John Bright usually spoke from short notes. Gladstone refreshed his memory from memoranda of the leading figures and facts he wished to cite. Mr. Chamberlain has four or five pages of heads. Lord Rosebery follows the same method. Lord Derby wrote down every word and committed his speech to memory. In one of his letters he says that all his principal speeches cost him two sleepless nights, one in thinking what he would say, and the other in lamenting that he might have said it better. Thiers made the most careful and elaborate preparation. O'Connell and Gambetta spoke always on the inspiration of the moment. The power of Gambetta's eloquence lay in the utterance of condensed sentences, such as the following: "When in France a citizen is born, a soldier is born at the same time." "There is no social cure, because there is no social question." "I feel myself free to be both a believer in Joan of Arc and a pupil and admirer of Voltaire." "Do not cry out 'Vive Gambetta!' but cry 'Vive la République!' for the young have to grasp the idea, and have the conviction that men are nothing, but that principles are all." "Not the sword alone can undo the Gordian knot; not power alone the international question."

Smooth, flowing, limpid speech becomes tiresome unless relieved by impressive phrases, brilliant figures or appeals to high principle or passion. Such speak-

ing may soothe like the murmur of a brook, but it is not impressive. A lady remarked of a certain American bishop: "The words seem to flow from his finger ends." G. W. Smalley said of Sir Stafford Northcote: "When the House grew excited at the close of a long party debate, and Sir Stafford rose in the small hours of the morning to wind up, in behalf of his party, men felt that the ripple of his sweet voice, the softness of his gentle manner, were not what the occasion called for." The trumpet-call is grander than the flute.

Expression is the most difficult branch to acquire or impart. Delsarte says: "A gesture supplies that which the word leaves out." An actor tamely rehearsed the closet scene in "Hamlet," and then asked his instructor how he liked the gestures. "I didn't see any," was the reply. "Didn't see any?" said the actor in astonishment. "No, I saw some motions, but no gestures." Matthew Arnold lectured in a monotonous, singsong tone, with an irritating, rising and falling cadence. His sole gesture was to clasp his hands in front and then wave them backward with a feeble flap. Bismarck had a dull, heavy voice. Every sentence was chopped into pieces of from one to five words, and these were commonly uttered in an explosive manner, with frequent stumbling over, or repetition of, single words. Both hands rested behind him when speaking, except when he occasionally gesticulated with the right, making an unmeaning swing of the hand upward, while the elbow remained at the side. Only two or three times during a speech of nearly two hours did he make any more emphatic gesture. Emerson made no gestures. Sufficient for

him were the modulations of the voice, and the occasional lifting of the head and brightening of the visage. Nevertheless, every word was uttered so as to express its fullest force and meaning. No one else could have delivered his lectures so effectively and captivatingly.

Talma, in his treatise on the art of acting, says: "The gesture, the attitude, the look, should precede the words, as the flash of lightning precedes the thunder." The true orator's movements must appear so spontaneous that they are unnoticed. Insensibly, they will affect his audience. James Redpath said that Wendell Phillips talked on the platform as if he were speaking in a parlor. He seldom moved more than a foot from the spot where he first stood, and his gestures were as quiet as his elocution. He never raised his voice loudly, although it was easily heard in the largest hall. Horace Greeley once said that he supposed no young man ever heard Phillips speak without thinking that he could talk just as well, without any trouble. Other young critics, who have not yet found out that it is lightning and not thunder that kills, expressed the wish that Phillips would "just let himself out once" and show what he could do. "I have even heard intelligent men compare him with Garrison and Parker Pillsbury as orators. It was the difference between a stout cudgel in the hands of an honest citizen and a Damascus blade wielded by a master of fence."

Henry Clay cautioned a young Congressman against making bitter personal attacks upon opponents. "When you go fishing," he said, "you find the best rod gives a little at each joint? It does not snap and

break at every touch, but bends, and shows its strength only when a heavy weight is put on it." The young Congressman said: "I caught his meaning. I had seen him chatting familiarly with the very men whom I was berating. Yet I knew when great interests clashed he was the one man whom they feared. I set myself to learn patience and coolness." Disraeli had oratorical tact. When he had to discuss the Copyright Bill, a less clever man would have been all cocked and primed. But he was brief and to the point, and complimented the literary ability of the House. He writes: "I sat down with a general cheer." On another occasion he wrote: "I feel how much more I might have done had I had time, but the opportune is sometimes preferable to the excellent. A majority is always better than the best repartee." This recalls the remark of Daniel Manning regarding the most effective speech at the Chicago Convention of 1884. It was comprised in one sentence: "New York casts her seventy-two votes for Grover Cleveland." When a political syndicate tried to pass a bill to sell the Brooklyn Navy Yard for $200,000, John H. Starin rose and said: "I do not know if it is in order, but I will draw my check for $500,000 for the property." This was his sole speech in Congress. It killed the scheme. An example of effective speaking was Senator Proctor's calm recital of Spanish atrocities in Cuba in 1898, of which ex-President Harrison said: "I do not think there has been made, in any legislative assembly of the world, in fifty years, a speech that so powerfully affected public sentiment as that." There was not a lurid adjective in the speech.

So many public speakers now read from manuscript that there is danger that oratory may become a lost art. No document, however dramatically read, can have the effect of an offhand speech. M. Doumic, the French critic, remarks that "reading from a manuscript or memorizing gives to the word something that is cold and without accent." He usually lectures with only a few notes, but after careful preparation, always striving to keep in touch with his audience, "eyes looking into eyes."

Reading aloud affords excellent practice. The main thing is to breathe properly, and to cultivate a simple, natural manner. Elocution, as usually taught, tends to an artificial, stilted and declamatory style. Hamlet's advice to the players tells all that a beginner needs to know about methods of declamation.

The best practice is for the novice to get up in school or in a literary society or club, and simply state facts or discuss some familiar subject, without trying to make a speech, until he acquires ease and confidence. Any one can talk upon every-day affairs. Practice makes perfect. At Packard's Business College in New York it is the custom on Friday mornings to call on the pupils to practise offhand talking on topics of the day. It has had astonishingly good results. In like manner, at the Twilight Club dinners, many "dumb orators" have developed ease and facility, by talking on topics which concern their daily affairs.

If one has something to say, the words will come readily. Gambetta said: "The speech is nothing to me; the idea I want to put forth and demonstrate is

all I think of in advance. For the remainder I trust to opportunity." In like manner, Daniel Webster criticised his own early orations, because when they were composed he had not learned that true power lies in the idea and not in the expression.

CHAPTER XIX.

MEDICINE.

Numbers in the Profession—Strain of Practice—Fees—Preventive Medicine—Only Capable Men in Demand. Dr. J. S. Billings on Study—Large or Small Colleges—The Medical Student—The Country Doctor—Dr. Willard Parker's Advice—Hard Workers—The Physician and Society—Tact and Gravity—Hotel Doctors—Examples of Success—Sir. Andrew Clark a Model Physician.

Our medical schools turn out annually some three thousand graduates. Many more enter the profession without a diploma. As Turkey has been called the "sick man of Europe," America might be called "the sick man of the Western continent." We have one doctor to 650 people. Great Britain has one to 1,800, France one to 2,300, and the German Empire one to about 2,000. Nevada is blessed with one doctor for every 380 inhabitants, Indiana one for 465, and Kentucky one for 547. The evils resulting from this superabundance of physicians are obvious. An American surgeon protests against the haste and speed with which students are allowed to rush through medieal schools, and the disastrous consequences to the public of their ignorance and lack of judgment. Of many patients this epitaph might be written: "Died at the hands of a short-term doctor."

Medical competition is severe, and lasts from the first to the last day of practice. None but the energetic and industrious can expect success. As a medi-

cal writer says: "If you have a son who is notoriously slow in intellect, wanting in application, or who prefers pleasure to steady work, as you value his future happiness and your own peace of mind, put him to any profession or business you like save medicine." Chauncey Depew, in an address to medical graduates, advised them to "stick and dig," which is about all that any one can say to the beginner. The delay in obtaining practice is often great, and "hope deferred maketh the heart sick." The London *Lancet* warns young men not to study medicine unless they have private resources. Many able men suffer great trials from lack of means to live on, while they are waiting for patients. Conan Doyle in "Round the Red Lamp" vividly describes the struggles of the young practitioner to get a foothold in an old community. *The Lancet* remarks that "one reason why the scale of payments for attendance on the sick poor is so low will be found in the number of eager applicants for any vacant post, let the emolument be small as it may." Two-thirds of the medical treatment in cities is practically free through the abuse of the dispensary system. Competition cuts into physicians' incomes sharply. On these accounts the city doctor is at a disadvantage with his country brother.

The English physician does not hold so high a social position as the American doctor. The latter drives daily and sees a variety of people, which keeps his mind fresh. He can usually earn a fair living, while, if he shows special talent, he may make more than a competence. His duties are not monotonous. On the other hand, his hours are long and irregular.

He is never master of his own time, but by day and night is at the beck and call of the public. A large practice is wearing and many physicians break down under it. Medicine, like law, is a jealous mistress. A certain proportion of physicians fail for want of adaptability; others from lack of energy or from bad habits. In the long run industry wins its way, and is better than special talent. Much depends upon natural aptitude. Manual dexterity is of great value, not only to the surgeon but to the physician. An eminent New York surgeon says: "I can tell by the touch the condition of a bleeding wound, or when using a needle whether the point is passing through a cavity or through flesh." Good address is also of vital importance. A physician should cultivate good manners, and how to make a pleasant impression. For this reason he cannot have too much general culture.

As certain men and women are endowed by nature with the healing touch, so others are born to charm. It was said of Dr. John W. Francis that his patients were soothed by his brilliant and lively conversation. Dr. Fordyce Barker had the same charm of manner. The pressure of his hand, the sunshine of his smile and his winning manners made him universally popular. Dr. Gunning S. Bedford was a thorough courtier, genial, alert and soothing. A fellow-practitioner remarked of Dr. Bedford: "He was an anæsthetic of himself in the confinement chamber." He once astonished his class by saying: "And now, gentlemen, some advice better even than great knowledge. Look well to your boots before you answer a call. There must be in them when entering a sick

chamber where dwells nervousness no creak of leather nor heavy sole, for your silent footfall will be a medicine of itself. Then you must cultivate your voice to soft, melodious accents, and your touch must be like the fall of a rose-leaf. Never whisper to the sick, for it is a funereal sound. Cultivate tact, for it is the open sesame to confidence."

Macaulay, on the authority of Prince Albert, states that in 1851 there was hardly a physician in Germany who earned $5,000 by his profession. Hence professor's chairs were very acceptable. Yet Brodie and Bright in England each made $50,000. Sir Astley Cooper had $5,000 thrown to him from the window, in a nightcap, by a patient upon whom he had operated. A similar sum was paid to an Arab surgeon by the Khedive of Egypt for curing his mother. Sir Charles Peacock, the Queen's accoucheur, paid an income tax one year on $150,000. This is said to be the largest income ever returned by a physician in England. Sir William Gull and Sir James Paget earned from $50,000 to $75,000 a year. When Baron Rothschild was ill at his country-seat both physicians were in daily attendance. They received 100 guineas for each visit. Sir William Paget is said to have received $2,000 for a visit to Ireland. Radcliffe in the height of his fame earned $35,000 a year; Mead, $25,000; Baillie, $45,000; Sir H. Halford, $55,000; and Sir Benjamin C. Brodie, the year but one before his retirement, $85,000. Radcliffe received $8,000 for visiting Lord Albemarle at Namur. Granvill was paid $5,000 and his travelling expenses for a visit to St. Petersburg. Sir William Gull received $10,000 for two visits to Pau, and $7,500 for a

week's stay in Perthshire. The fee of fees was that received by Dr. Dinesdale, in 1768, for inoculating the Empress Catherine and her son at St. Petersburg, viz, $60,000 cash, a life pension of $2,500, and a baronetcy. Charles Keetley, the senior surgeon in West London Hospital, charged $2,000 for a railway accident case in France, and when he sued for the claim a jury gave him $1,750. Valentine Mott testified in court that his income was $600 a day. A throat specialist who secured the patronage of the professional singers is said to have earned $70,000 in one year. The exaggeration about lawyers' and doctors' incomes is largely due to the fact that it is noised about that a man in a certain year made a large sum, which it is assumed forthwith is his regular income. Few lawyers or doctors die rich.

The highest medical fee on record in America was $100,000, given by Mr. Flagler, of the Standard Oil Company, to Dr. George Shelton for attending his daughter for many months. Dr. McBirney, of New York, is reported to have received $40,000 for attending a patient. Provost Pepper, of the University of Pennsylvania, told a friend that he had earned $60,000 within nine months, and he received $10,000 for a visit to Erie. The average income of a New York physician under thirty will not exceed $1,500. If a beginner earns $300 the first year he is "doing as well as could be expected." If he earns $3,000 a year by the time he is forty, he should be content. The highest medical income in New York is about $60,000. There are perhaps a hundred men who earn $20,000.

Dr. Fordyce Barker quoted to the New York Acad-

emy of Medicine the saying of Dr. John Ware, of Boston, made about 1846, that the public no longer believed in the medical profession as a body, and that there only remained such personal confidence as individual members might secure. "This," he said, "was partly due to the antagonism developed by the spread of homœopathy, and partly to the doubts which the best physicians feel regarding the certainty of medicine as a science, which has led so many of them to rely less upon drugs for the cure of disease than upon nursing, diet and sanitation."

Josh Billings remarks in his quaint way that a doctor is a very nice, bland gentleman, who charges you three dollars for telling you to eat less and exercise more. This well represents the disparaging opinion which many laymen have of the physician's office. "Why did you not send for me?" said a doctor to a man who had been sick. "Oh, I didn't want to do anything desperate," answered the latter.

Sir Astley Cooper declared: "The science of medicine is founded upon conjecture, and improved by murder." Sir James Johnson said: "I declare as my conscientious conviction, founded upon long observation and experiment, that if there were not a single physician, surgeon, chemist, druggist or drug on the face of the earth, there would be less sickness and less mortality than now prevail." Dr. Oliver Wendell Holmes remarked that "if the whole materia medica could be sunk in the bottom of the sea, it would be all the better for mankind, and all the worse for the fishes."

The young physician should therefore make up his mind to study the causes of disease. The *Medical*

Record says: "The province of the doctor is not alone that of healer, but of health-officer to the family and the community. He must seek for hygienic as well as therapeutic triumphs. . . . If the merest minority of medical graduates would devote a share of their time, while awaiting the growth of a paying practice, to the study of preventive medicine, they would undoubtedly be better prepared for obtaining that practice."

The recent advances in sanitary science have opened a new field for physicians. The position of Health Officer may not always be well paid, but it brings a man in contact with the public and is a valuable means of advancement.

Owing to the spread of hygienic knowledge, people have become more careful in regard to their health and are less exposed to many forms of disease. They have also learned how to treat their own simpler ailments without calling in a physician. Thousands of families keep their own medicines and use them without the direction of a doctor. On the other hand, the growth of our complex civilization and the pressure of living foster many ailments, especially among industrial workers, such as are set forth in Dr. Richardson's "Diseases of Modern Life." The physician will therefore always find a demand for his services.

The methods employed by Tom Sawyer to get a start are still practised by physicians, but as a rule hard work and close attention to their duties are the means most generally used. Some get patients through accident, or through social connections, or through other physicians who send them cases which

they have made a speciality of treating. The medical profession has changed its status. There is no field for shallow men and charlatans. Only those who are capable and will work hard can succeed. The broader the foundation the taller the structure one can rear upon it. But the medical student should not decide too early what specialty he means to follow. He had better wait and follow the opportunities which circumstances open. English physicians assert that we have too many specialists. A famous doctor, when asked if he made a specialty of the skin, answered: "Yes, and everything inside of it." The general practitioner takes a broader view than the specialist, and therefore should rank higher, though individual taste or chance lead many men to devote themselves to special lines in medicine.

Many physicians have regretted in mature life, when they lacked the opportunity for study, that they had been unable in youth, when the mind is most receptive, to ground themselves thoroughly in the knowledge of their profession. Some kinds of knowledge are hard to master in later years.

Dr. J. S. Billings, one of the best equipped and scholarly men in his profession, remarks: "Thirty-three years ago I began the study of medicine, having obtained the degree of Bachelor of Arts after the usual classical course of those days. It so happens that the smattering of Latin and Greek which I obtained has been of great use to me, and I may, therefore, be a prejudiced witness. I had attended lectures in physics and chemistry but had done no laboratory work, and I could read easy French and German. Thus equipped I began to read anatomy,

physiology, and the principles of medicine. Nominally I had a preceptor, but I do not think I saw him six times during the year which followed, for I was teaching school in another State. Nevertheless, he told me what books to read, and I read them. The next thing was to attend the prescribed two courses of lectures in a medical college in Cincinnati. Each course lasted about five months and was precisely the same. There was no laboratory course, and I began to attend clinical lectures the first day of the first course. One result of this was that I had to learn chemical manipulation, the practical use of the microscope, etc., at a later period, when it was much more difficult. In fact, I may say that I have been studying ever since to repair the deficiencies in my medical training, and have never been able to catch up."

Hundreds of other physicians have had a similar experience.

The facilities for studying medicine in this country are unsurpassed. While foreign travel is advantageous, there is no necessity for a student to go abroad to perfect himself. In Continental Europe medicine is studied more as a science than as an art. An eminent German said: "Providence created disease that physicians might have something to study." More attention is there given to pathology and morbid anatomy than to the cure of disease.

The medical college in the large city has decided advantages over the one situated in the small town, because it attracts the ablest teachers and has the finest hospitals. Smaller institutions may have able professors, but they lack clinical advantages and subjects for dissection. Again, in the large city there

are always young physicians who will coach students when desired. Many lecture courses need to be supplemented by such special instruction, notably on the practical use of the microscope, stethoscope, and other instruments, together with electrical and chemical appliances. It is advantageous for the beginner, before attending medical lectures, to study for a year in a physician's office, particularly in the office of one who compounds his own drugs. The student thus learns, by contact, the nature and appearance of the different compounds, and prepares himself by preliminary study better to understand the lectures he will hear later.

Dr. Cathell's "The Physician Himself" (Baltimore), which has passed through eight editions, may be commended to all young doctors as full of valuable counsel.

"New York City gathers medical students from every quarter of the western hemisphere, and here is the best place, perhaps, to study the average specimen. He comes from the country or some small town, where he has been spending the summer with his preceptor. He has picked up quite a number of ideas and has some very positive opinions. He takes a room with board, for which he pays six dollars a week. He matriculates, joins a quiz, and settles down to work, for our American medical student is essentially an industrious fellow. His hard studying is done for the most part during his two winters at the college. But he is not entirely unsocial or non-convivial. He picks up some acquaintances, and takes a chum. There is a gradual accumulation of beer bottles under the bed. A few bones and some

pipes adorn his tables and walls. Although the chemical professor has discoursed upon nicotine, and shown that 'one (or two at most) drops make a cat a ghost,' he continues to smoke. A permanent odor of tobacco attaches itself to the room.

"As our student progresses in acquaintances, he finds that the mind really needs intervals of rest and relaxation, a point in mental hygiene which takes an especially strong hold upon him. By this time he knows the young lady of the house very well. She has taken him to church. He has escorted her to the theatre. He horrifies her with tales of the dissecting-room, and with the most harrowing descriptions. She thinks the doctor's life very hard, but sympathetically asserts that it is a very noble one.

"In the lecture room there is occasionally an interchange of missiles between hours, some loud talking, or even a scrimmage. But he finds that to be boisterous is a habit that is wearing away, and now exists only in the inferior schools.

"He does not wear fashionable clothes. His sleeve buttons are in the skull-and-crossbones style, with green glass eyes. His cane is grotesquely carved. With this he walks up Fifth Avenue on Sundays. He has one or two nice acquaintances, but, on the whole, his appearance in society is confined to the unpretentious boarding-house hop, or more quiet social gatherings, all terminating invariably in ice-cream and cake. He still likes to bring stories from the college into his general conversation, and is rather proud of the sensations which his descriptions or comments produce.

"As examinations approach, he works harder,

smokes more, and drinks just as much. When he has passed the examination, and received his degree, he is just as likely as not to pack up and go straight home, in a perfectly normal and non-alcoholic condition.

"Our average student is not a bad fellow or an extraordinary fellow. He has no great fondness for study, but he works with enthusiasm and graduates creditably. He settles in the country or in some provincial centre, battles with fortune and disease, against heavy odds, for several years. Finally he becomes a useful and respected member of society, passing from 'the average student' to something more than an average man."[1]

The young graduate who begins practice in a large city is lost in the crowd. His first patients must be largely among the poor, who can pay little, if anything. He finds it hard to gain a foothold among the well-to-do. Yet many young physicians have won success in New York and other cities, in spite of such obstacles by following the example of a famous doctor who said: "I crept over the backs of the poor into the pockets of the rich."

The country practitioner has to travel long distances, is paid less than his city brother, and is isolated from professional associates. But his opportunities for observation and experience are not small, and he gains self-reliance and readiness in emergencies. Ian Maclaren, in his pathetic sketch of the Scotch doctor, describes, in "Beside the Bonnie Brier Bush," the hardships of the country doctor's life. That life, however, has its compensations. Virchow

[1] Medical Record.

built up his reputation in a remote town. Mayer, whom Tyndall ranked first "as seer and organizer," was all his life a country doctor. Ephraim McDowell first performed the operation of ovariotomy in 1816, in a Kentucky village. Oliver Wendell Holmes describes, with happy skill, the country doctor: "He is self-reliant, self-sacrificing, working a great deal harder for his living than most of those who call themselves the laboring classes. He has the sagacity without which learning is a mere encumbrance, and he has also a fair share of that learning without which sagacity is a traveller with a good horse, who cannot read the directions on the guide-boards." Hundreds of such men are leading laborious, useful and honored lives throughout the land. While unknown to fame, and not rich in this world's goods, they are valuable members of the community.

The country doctor must be plucky, keen of observation, prompt, full of resources, self-reliant. His cases may be difficult, yet his resources are small. He may need counsel, and have no one to call in but an ignoramus or a bigot. He may be forced to be pharmacist as well as physician. He may be confronted with a complicated surgical case and lack instruments and appliances. Again, his work is seen by all men. He is subject to constant criticism, and cannot shirk responsibility or hide behind subterfuges. On the other hand, "if intelligent and educated, possessing a warm heart and generous sympathies, the country doctor gains respect, esteem and love. He learns to know his people even better than they know themselves. To them he is a friend, comforter and adviser; and he becomes, what is growing rare in

cities, the family doctor, in whom all confidences meet and rest, and in whom all hopes of human aid are centred in times of trial, sorrow and impending dissolution."

If the country doctor complains that he has no leisure, neither has the city doctor. Only the great workers have time for work. Every case that comes before him is a clinic, if he will turn it to account. He has but to keep up the scientific habit, and all that he does will have the character and productiveness of scientific work. If he thinks that he is deprived of the stimulus of fellowship, he is mistaken. The post-office will keep him in touch with his peers, whatever his rank.

Dr. George F. Shrady, in an address to medical students at Kingston, laid special stress on the results which can be accomplished by the aid of small things. Some of the greatest discoveries have been made with the simplest apparatus, and the surgeon and the doctor, like the engineer, must often perform great feats with the least help.

Dr. Willard Parker, in an article, "How to Succeed as a Physician," said: "The doctor must love the profession and possess sound common sense. He must use the books, not let the books use him." Men who are walking libraries, and nothing more, may fail utterly in a sick-room.

"Each patient's disease," says Oliver Wendell Holmes, "has features of its own; there never was and never will be another case in all respects exactly like it. If a doctor has science without common sense, he treats a fever, but not this man's fever. If he has common sense without science, he treats this

man's fever without knowing the general laws that govern all fevers and all vital movements. . . . The men that have science only begin too far back, and before they get as far as the case in hand the patient has very likely gone to visit his deceased relatives."

No profession requires a greater range of study. The treatment of disease involves a study of the laws of hygiene.

As to medical ethics, a man should do to others as he would be done by. The doctor must be courteous, cheerful, prompt and kind, but firm; he must feel a personal interest in his patients and show that he takes their cases to heart.

Some men get along because they have an easy way and good opportunities of making friends. Some have a great deal of brass and push themselves into success, but it is not a solid success, and will last but a few years.

What Ruskin says about artists applies equally well to doctors. "You may have known clever men who were indolent, but you never knew a great man who was so. When I hear a young man spoken of as giving promise of high genius, the first question I ask about him is always, Does he work?" Ricord taught English for a living while studying medicine, and only slept five hours out of the twenty-four. Nélaton read lying on a board placed between two chairs. When drowsiness overtook him, he fell off his narrow bed, and awoke to fresh struggles with his task. Velpeau, who was the son of a farrier, received no early education. He studied his own language, besides Latin, Greek, history, geography, physics, chemistry and botany during his first year of

medical study. A young Japanese student entered the University of Berlin entirely ignorant of German, as of science. In three months he passed an examination conducted in German, and including several branches of medicine.

Dr. I. Burney Yeo, writing of "Medicine and Society," in the *Nineteenth Century*, makes many admirable suggestions regarding the relation of physicians to their patients, to the public, and to one another. "No man," he says, "can become a successful practitioner who does not add to his technical training a keen insight into human nature." The present tendency to extreme specialization interferes with the personal relations between the doctor and his patient. It is impossible to feel the same interest in a fractional part of a person as in the whole man. The specialist loses breadth of view and is in danger of being regarded as a mere handicraftsman, or as one skilful in manipulating some special appliance, who is dismissed and forgotten as soon as his work is done. The high fees charged by specialists foster an impression in the public mind that the profession is becoming mercenary. This opinion is strengthened by the prevalent methods of self-advertising. Medical etiquette is often carried too far, and is regarded by laymen as dictatorial and coercive. Common sense, good faith, discretion and gentlemanly feeling are the best guides to follow in the doctor's relations with society and with one another. Tact, gravity, and a calm and even temper are the three *personal* qualities of greatest use to a physician. Affirmation is more acceptable to most persons than discrimination. One must at least appear to have self-confi-

dence to gain the confidence of others. The physician often has to decide promptly to satisfy the patient or the patient's friends, when he would prefer to deliberate. A certain facility in arriving rapidly at sound conclusions is gained by experience, but tact will enable one to postpone a final judgment, or to avoid expressing it in too positive a form. A capacity for the ready invention of expedients will also prove serviceable. Dr. Weir Mitchell justly complains of those patients who "ask instant treatment when we know that time is what we want, either for the study of present symptoms, or to enable the growing disorder to spell itself out for us, as it were, letter by letter, until its nature becomes clear." An English physician was visiting a very sick nobleman. The patient's wife inquired, "What do you think of the baron, Sir X.?" Folding his arms, as was his wont, and looking fixedly from under his long, overhanging eyebrows into the baroness' eyes, he replied very slowly and deliberately, "What do you think, baroness?" "I think him very ill," was the reply. "So do I," responded Sir X., very solemnly. He then said, "Good-night, baroness," and departed, leaving a profound impression, but without having given any definitely expressed opinion.

The hotel physician in a large city lives comfortably, makes money, and comes in contact with persons of wealth and prominence, but he fails to form permanent connections with families who will regard him as a friend as well as a physician, while he is apt to become too fond of his ease and so lose interest in his profession.

The young physician has to contend with the natu-

ral prejudice against youth and inexperience, which he tries to combat by growing a beard, wearing spectacles, and putting on all the dignity of age that he can assume. But the public sometimes prefers a young man because he is full of enthusiasm, and fresh from the hospitals, with the latest ideas and experience. He throws himself into a case with ardor and his zeal inspires confidence, and is sure to bring practice. I recall one young doctor who said he would rather practise without pay than not practise at all. Such men always succeed.

Here are some examples of men who have won their way: Dr. Forbes Wilson, the English expert on insanity, arrived in London with a couple of shillings in his pocket. He reported Parliamentary speeches, after which he would work by candle-light in the dissecting-room, into the early hours. When he died in 1874 he was an acknowledged leader in the profession. Dr. Fordyce Barker's father gave him $100 and a horse, and told him to start out for himself. He rode until his money was gone. Finding himself in Norwich, Conn., he determined to stay there. A paper which he read on obstetrics, before the State Medical Association, led to his being invited to New York to fill a professor's chair. For a few years he had a hard struggle, but when Bellevue was opened and he was made obstetrical physician his prosperity began. Dr. James R. Wood came from Vermont to New York and took charge of the outdoor branch of Bellevue Hospital. He received no pay, but the privilege of making autopsies upon all who died in the hospital. To this constant practice he attributed much of his skill in surgery. He also introduced

bedside instruction, which created great enthusiasm among the students, and gave a new zest to their studies.

Sir Andrew Clark was a great doctor. "The first practising physician in Great Britain," Mr. Gladstone called him. His death caused unparalleled feeling among his associates. He was devoted to his profession. He worked on an average sixteen hours a day. He rarely went into society, yet he never seemed in a hurry. He surprised and won the confidence of his patients by his seeming absorption in their cases. Even as a boy he was singularly pure and noble-minded, and his whole life was free from self-interest. Mr. Gladstone says: "During twenty-five years' intercourse I do not recollect ever to have heard him utter a single word relating to his own convenience, comfort or advantage." His practice was largely among persons of wealth and rank, including royalty. He left a large fortune. He was exceedingly generous. He made it a rule never to request or demand a fee. He had many literary and professional men, including Tennyson and Gladstone, among his patients. He won their affection and esteem by his breadth of mind and lofty nature. In short, in his case, the highest professional attainments were combined with faith, honor, chivalry, nobility. No better example could be offered to the young physician.

CHAPTER XX.

THE ENGINEERING PROFESSION.

Its Antiquity and Honors—Control of Natural Forces—Pay of Engineers—Blunders of Unskilled Men—Qualifications Required—Need of Culture and Literary Training—How to Handle Men—Fitness for Responsibility—School or Shop?

THE engineer is of ancient lineage. From the days of Tubal Cain, the first worker in metals, he has been honored by kings and recognized as a public benefactor. George Smith found the title "Master of Works" in Assyria, 2,500 years back. Among the designations of the god Vulcan were those of "Lord of Canals" and "Establisher of Irrigation Works." Civilization and progress are largely dependent upon the engineer's labors. He builds fleets and railways, which bind nations together in commercial relations. He yokes the winds and waterfalls to grind corn or weave cloth. He constructs docks, lighthouses, aqueducts, reservoirs, canals, sewers, bridges and fortifications. He drains, lights, warms and ventilates buildings. He digs mines; irrigates vast territories; drains lakes; lifts whole cities bodily in the air; and performs feats which make Hercules' labors seem trifling. To quote Sir Frederick Bramwell: "The whole of the material needs of humanity, and many of its intellectual requirements, are either satisfied

through the labors of the engineer, or are under obligations to these labors."

A prominent public man showed his son the inscription at Niagara Suspension Bridge, and said: "I would rather see your name upon such a tablet than attached to the highest political office."

To succeed in this vast field of effort requires trained capacity. Rule-of-thumb methods will not serve. A knowledge of scientific principles is indispensable. One must also love the work, and not be daunted by hardships and disappointments.

The engineer deals with tides, floods, cyclones and electricity. Charles F. Scott, speaking before an engineers' club, said: "Niagara Falls represents six million horse-power. It would take ten times the population of the United States to pump the water back by hand as fast as it flows over the falls." This illustrates the tremendous natural forces with which the engineer deals. He has to guard against the insidious influence of rust, decay, damp, wear and tear, and accident. He therefore needs to be far-sighted, cautious, patient and watchful, and to be a constant student of phenomena.

Untold millions have been wasted on schemes laid out by half-trained or incapable men. Railways badly built or wrongly located; unnecessary tunnels and bridges; reservoirs and canals, where not enough allowance had been made for friction or pressure; whole districts sickened by badly planned drains; railway disasters caused by imperfectly built bridges or embankments—these failures have taught business men and the public the value of skilled engineering talent.

Few engineers become rich. Professional advice

has only lately been rated at its true value. Young engineers often receive less wages than mechanics. Many municipal engineers are paid miserable salaries. The same is true of engineers employed by many railway and other corporations.

Where vast moneyed interests are involved expert advice is well paid. In 1884, Captain Eads received $15,000 for a report on the Manchester Ship Canal, which occupied four months' time to prepare. Baldwin Latham was paid $50,000 and expenses for consultation relative to the Bombay sewerage system. As the work cost $16,000,000, the fee was small in comparison to the responsibility. James Mansergh, of England, received $15,000 for a report on the Toronto water supply. Rudolph Hering and J. H. Feurtes, of New York, for their joint services in examining the sanitary condition of Santos, Brazil, were paid $65,000, about four per cent on the cost of the work planned. The time consumed was about one year. Many of the great engineering feats, like the new Croton Aqueduct and East River Bridge, were performed by salaried men. The heads of many railways, however, have princely pay; for example, Presidents Roberts and Thomson of the Pennsylvania Railroad, while President Galloway, of the New York Central, who in 1863 earned $8.33 a month as a boy of twelve in Canada, now receives $50,000 a year as Chauncey Depew's successor.

W. F. Goodhue states that he received $12,000 for six years' labor in rebuilding a Western railroad, while a lawyer who acted as receiver was paid ten times as much, though the property deteriorated under his management. He adds that it is not a question

of natural ability. If engineers were as broadly and liberally educated as lawyers, their chances should be equal. Engineers fail to hold their own because they lack knowledge of human nature, of business methods, and of book-keeping. They are often the slaves of details, and too diffident and timid in manner. They do not impress their clients as capable business men, as did Eads and the younger Roebling. An engineer should be as well versed in business as the contractor or the maker and dealer in materials, with whom he comes in daily contact.

Civil engineering is not a bonanza. Only the best engineers get fair salaries, and they pay dearly for them. Engineers are as nomadic as Arabs. They cannot half educate their children. Their homes might as well be on wheels. They are sent hither and thither, and endure all manner of hardships. A prominent engineer says: "I once went with a party to locate a branch of the Pacific Railway. We were in the wilderness, away from all comforts, sleeping with mules and horses, and yet $300 a month was thought exorbitant pay. I met some time ago the engineer who built the Panama Railroad. He has never known a healthy day since. Aspinwall paid him $5,000 a year on condition that he should aid the young members of the profession. But what is $5,000 to a man who is a total wreck?" Notwithstanding this toil and hazard, so long as man wills to subdue the forces of nature, or to alter the face of the earth for his convenience, so long will brave and skilful men be found to do it.

In 1893 the American Society of Civil Engineers had 1,700 members; the American Institute of Mining

Engineers, 2,500 members; the American Society of Mechanical Engineers, 1,700 members; and the American Institute of Electrical Engineers, 700 members; a total of 6,000. The British Institute of Civil Engineers numbers 6,000, and the Verein Deutscher Ingenieure is an equally large body.

Many eminent engineers had no systematic training. Watt and Smeaton were instrument makers; Telford was a mason; and George Stevenson an engine-driver. They all possessed special aptitude, and were hard students. They spent years of weary work in acquiring what would now be a short and pleasant task. An engineer of great eminence, when speaking to a student of the facilities now afforded for study, said: "With a great sum obtained I this freedom, but you, like St. Paul, were free born."

The apprentice, who formerly worked from 6 A.M. to 6 P.M., had to grope painfully, in the dark, for knowledge. Old mechanics are shy to impart information, which they consider part of their stock in trade. Again, much "picked-up" knowledge is not accurate. It is also apt to be confined to special lines of work, instead of covering the whole engineering field and including scientific principles, a knowledge of which is necessary to understand the "why" of everything. Imagine a man trying to master mathematics without a teacher. It has been done, but at what waste of time and effort.

Such accuracy has now been reached that when the tunnel-headings of the new Croton Aqueduct were joined there was a discrepancy in the borings of only five-eighths of an inch. In the Hoosac Tunnel the difference was the same. In the Mont Cenis Tunnel

there were three feet of variation, which was considered "almost exact."

Professor Thurston, of Cornell, says; "Good mental capacity, strong sense, and a taste for applied science, especially mathematics, afford the best guarantee for success in this field. Practice in free-hand drawing will prove an invaluable help; and a knowledge of chemistry, physics, especially heat, light and electricity, will be found useful." He adds: "The better the man, the better the graduate." He suggests that a young man should master algebra through radical quantities, the first five books of geometry, study American history, rhetoric, and exercise himself in writing on familiar subjects. Such a preparation can be had at any good school.

Full details regarding engineering schools and courses may be obtained from the secretaries of the national engineering societies in New York.

The demand for a high grade of technical training has kept pace with the supply. In 1886 there were only ten engineering graduates from Cornell. In 1892 there were ninety. There are now some ninety-four engineering-schools in the country. The graduates of Cornell and Stevens Institute have easily found employment and been rapidly advanced at the latter institution; a third of the students have had places waiting for them before commencement day. The same is true in prosperous years of the graduates of the Schools of Mines and Engineering, Columbia University.

Henry Hackney, a Cornell graduate of the class of '76, received $1,200 the first year, and steadily advanced until he was engaged for three years at $12,000,

Engineer McNulty, who had charge of the Brooklyn end of the East River Bridge, was the youngest man in the force. When refused a position, because only skilled men were wanted, he pluckily offered to work for nothing. The trustees were soon glad to pay him a salary, and steadily increased it. He graduated from this school of experience with credit.

Lowell says: "Special culture is the gymnastic of the mind, but liberal culture is its healthy exercise in the open air. Train your mental muscles faithfully for the particular service to which you intend to develop them in the great workshop of active life, but do not forget to take your constitutional among the classics, no matter in what language. That is the kind of atmosphere to oxygenate the blood and keep the brain wholesome." The relation between technical and general training could hardly be more tersely expressed.

Rossiter W. Raymond remarks in reference to the value of general culture to the engineer: "Success is a social matter; it depends upon a man's influence over men. Knowledge of facts and laws in nature will not achieve it. The most thorough metallurgist or engineer needs to be able to make other men recognize his ability. Nay, long before he can acquire thoroughness he is dependent upon other men for every chance of practice. A liberal education gives power over men; and the technical education, which gives power over matter, will be twice as easily gained if it is grounded on the mental discipline and the moral strength of a culture wider than its own."

G. F. Deacon, an eminent English engineer and President of the Mechanical Section of the British

Association, lays special stress upon the value of training in literary expression and of the importance of "the power of marshalling facts, and so thinking or speaking or writing of them that each maintains its true significance and value. In the minds of many young engineers a mathematical training undoubtedly has the effect of making it extremely difficult to avoid spending an amount of time upon some issues entirely out of proportion to their importance; while other issues which do not lend themselves readily to mathematical treatment, but which are many times more important, are taken for granted, upon utterly insufficient data, and chiefly because they cannot be treated by any process of calculation." President George F. Swain, of the Boston Society of Civil Engineers, says: "The engineer should make himself first a good engineer, and secondly a man of broad and liberal sympathies." Not every young engineer need take a college course, but he ought to gain breadth of culture. President Swain thinks the engineering societies should have several grades of membership, and education should be regarded as equal to very considerable practical experience. Alexander S. Holley deplored the lack of high culture and general education among engineers, and declared that both were essential to success in the profession. The late Professor Cooke, professor of chemistry at Harvard, in one of his last papers, advocated a broader education for scientific men. He was always a disbeliever in an exclusively scientific education.

G. F. Deacon says: "It is a matter of general experience among engineers who have closely watched the rising generation, that the most successful men in

after-life are not produced exclusively from the ranks of those whose college course has been most successful. No doubt, such men have, on the average, been nearer the top than the bottom, but it is an undoubted fact that when we class them according to their earlier successes or failures, we find the most remarkable disparities." Professor Hutton, of Columbia University, has the same opinion.

The surest test of a man's education is whether it fits him to accept responsibilities. O. F. Nichols said to the students of the Rensselaer Polytechnic: "It is wonderful how rapidly young graduates develop as responsibility is thrust upon them. No man can be criticised for accepting a position for which he is not fully prepared, but he deserves severest censure if he fails to qualify himself to fill it." "I never built anything of the kind," said a graduate in charge of a most important work, "and I know nothing about it, but I will know all about it before I get through with it. The difficulties generally come singly, and you have time to meet and master one before another comes. If you want a position, take it. If you learned anything at Troy, you learned how to find out what you do not know."

Foster Crowell, C.E., advised engineering students to learn how to handle men, and to make careful notes of their working capacity, so as to know what can be expected of them, what they cost, and what their service is worth.

The man who has dug a trench, felled a tree, or laid a drain-pipe or rail, with his own hands, is better fitted to direct others than one who has never done such things. When W. E. Worthen was appointed

engineer of the New York Health Board, he learned to "wipe" a plumber's joint—not an easy thing, by the way—so as to comprehend all his duties. One never fully grasps a principle until it has been applied in practice. Soaking a piece of brick in kerosene and then lighting it like a torch impresses upon the mind, better than any theorizing, the way in which dampness rises in house-walls by capillary attraction, just as Professor Doremus' beautiful experiment of blowing out a candle through a foot of sandstone demonstrates the porosity of houses under wind-pressure. What is wanted is what Holley called "a hand-to-hand" knowledge, acquired systematically and confirmed by investigation. He strongly advised students not to accept second-hand information, but to ferret out for themselves the facts and their meaning.

Charles E. Emery, C.E., in an address before the Stevens Institute, on "How to Succeed," said the great secret is to start right. "If it were possible to double the length of the course of study and have the school in a large manufactory, principles and practice would be systematically combined." But it is essential that a man's early years should be spent in a circle of culture and refinement, so that his manners and bearing may become so fixed as not to be affected by contact with the rough externals of life. Educated men learn practice more rapidly than others. If waiting for a position, study mechanical operations around you; master every detail and the principles underlying them. Don't ask too many questions or offer suggestions, lest people think you are conceited and bumptious. The inspector of a railway asked the

engineer in charge: "That seems to be a capable young man; where did you find him?" "Oh, X. sent him from —— College. He was a tearer, I tell you. Had to keep him in the shed with an axeman for two days, learning how to make centre stakes. He's done pretty well since then." He probably wished he had not offered to instruct the whole party how to make such stakes! Another youngster designed an elaborate apparatus to lift an engine off a car, which would have taken days to build, and was mortified to find that the work had been done with an improvised derrick while he was busy at his drawing.

If engaged in an office or manufactory, adhere closely to the usual practice of the place, without proposing new methods, which for special reasons may not be practicable. Learn the use of tools, how to make patterns, and master mechanical appliances and processes. Absorb all that you can, even from inferiors. The wise man "knows what he don't know," and seeks information from every source. To make correct estimates, one must be exact at figures, or serious loss may follow. Do not be carried away by the spirit of invention or meddle with devices outside of your special field. Never invent for the sake of invention, but only for a direct purpose. Avoid confidential relations with contractors, and rigidly separate business from sociability. Do not join too many societies. Preserve your health. Mental strain without rest means certain break-down. Night-work is not necessarily injurious, but lack of nourishment and of rest cripples the strongest and makes him succumb to lurking diseases.

Almost alone among professional men, engineers

are fitted by training and experience for executive positions. A great engineer may direct an industrial army. Thousands of men and millions of money may be employed in a great railway, while an inter-oceanic canal becomes an affair of world-wide importance. M. Sadi-Carnot, who became President of the French Republic, while Minister of Public Works had a staff of 72 chief engineers, 270 ordinary engineers, and 1,000 assistant engineers.

The United States is perhaps indebted more to its engineers than any other set of men for its marvellous development. Yet the engineer has received almost no political preferment. This is probably due to the absence of certain qualifications, and with increased culture and opportunities we may expect to see more engineers filling such positions as that of Colonel Waring, the Street-Cleaning Commissioner of New York City.

Engineers are more and more taking up specialties. There is less opportunity for the free-lance. The all-around engineer is a thing of the past. It is wellnigh impossible for a man to be eminent in every line. He is the employee either of a large corporation or of a municipality.

One great field of the future is municipal engineering. There is a growing appreciation in municipal administration of technically trained men, instead of political camp-followers. The wave of reform which is sweeping over the country with the spread of civil-service rules will create a steady demand for capable men, not only to look after city parks, docks, pavements, but also to manage prisons, almshouses, and other public institutions. The extension of good

roads stimulated by the wheelmen is leading to a demand for a higher grade of officials to construct and maintain roads. Colonel Waring set the example of employing educated young men as foremen and district superintendents. Professor Chandler gave a preference to School of Mines graduates as health inspectors.

Whether it is better to enter the school or the shop first is an open question. The subject was fully discussed at a conference of American engineers some years ago. President Holley, of the Institute of Mining Engineers, said: "The art must precede the science. The man must first feel the necessity, and know the directions of a larger knowledge, and then he will master it through and through. Many men have acquired a more useful knowledge of chemistry in the spare evenings of a year than the average graduate has compassed during his whole course." Beginning with theoretical and abstract knowledge is no less an inverted process in the useful arts than in the fine arts. It is like taking a course of Ruskin within brick walls preparatory to opening a studio, and then climbing the mountains to square nature with the books.

Professor Thurston insisted that the technical-school graduate who enters practical work labors under disadvantages compared with the youth who has had some experience. The former may possess learning, a well-trained mind, and sound judgment, but he lacks knowledge of men and of things, which he can only obtain by personal contact. He cannot manage employees without making unreasonable demands upon them or yielding more than is just. He

knows nothing of business methods, and is not accustomed to hard rubs.

In "Chordal's Letters" both sides of the question are so happily presented that I make a lengthy citation: "Something must be done with my oldest boy, Joe. He has been knocking around the shop during his idle hours, and has developed a certain amount of original talent. He has never worked in the shop, but has wanted to very much. His originality takes a critical turn as well as a constructive one. He got into the true inwardness of one of my mechanical schemes, and I caught him expressing his opinion of the machine in a way which filled me with pride and mortification. Some of his remarks were not very complimentary to the skill and good judgment of the elder Chordal. I had to find my consolation in the critical ability displayed by the young man. Joe's future is a mechanical one. I have never let my investigations into the boy's character take a suggestive turn, and for this reason I can speak with some certainty of the real bent of his mind. What I am studying on is how to arrange matters to the best advantage; how to start Joe in the best channel. This is a subject which interests other people with other brilliant Joe's on their hands; otherwise I would not broach the subject.

"When I say Joe's future is a mechanical one, what do I mean? Is he to be a master-mechanic of railroads, or is he to have M.E. on the end of his name, and do the scheming and general-talent business for large concerns? Is he to be interested solely in construction and become a capable superintendent? Is he to be a managing proprietor? Or is he to be-

come a power to appeal to in matters mechanical, and be the counsellor of all who see fit to come? I don't know which of these specific niches Joe will stand himself in, and, more than that, I don't care. I only know that, whichever way his lines may fall, he will be none the worse for having some direct and intended preparation. By preparation I mean education, that substantial substructure on which all experience is valuable for being founded.

"As Joe's mind has taken a mechanical direction, I have been nosing around among the credentials, to wit, the output of our technical schools, and as a result have chosen one. Joe is now in condition to enter any of them, and the question with me is, whether to recommend him to pack up and enter college, or to lay in a stock of overall-stuff and go into the shop. You will agree with me that he must not do both of these things at the same time. Which had better be done first?

"Suppose he puts on good clothes and goes to college. From the very start he will assume upon the future great position he will take in the world. He will assume that he went to college because he was a superior sort of a Joe, none of your common stuff. He will develop the proper ambition and superiority, and will receive the encouraging smiles of his instructors. He will study hard, and under the guidance of capable and wise instructors will gradually absorb that very knowledge he went after. Some fine day he will return and lay before me his sheepskin, and an admirable and really original and excellent thesis, and drawings most skilfully executed by his own hands, aided by facilities in the way of rul-

ing-machines which he may never hope to see again. I will feel the warmest pride in this boy of mine, and in answer to his inquiries I will probably say, 'Go out and try the world, Joe.'

"In about three weeks a young man by the name of Chordal will call on me and eloquently express himself on the unappreciativeness of a bigoted world that don't know what is good for it. Joe will tell me of his conference with Mr. Simpson, who acknowledges that his business is falling off, on account of a lack of engineering ability in superintending the erection of his work. Oh, yes; Joe feels capable, and fearlessly goes off fifty miles to superintend fifteen men putting machinery into a big brewery. Men say to Joe, 'What do you want done first?' Joe says, 'I don't know.' Men say, 'This big pulley came from the shop without being balanced; the shaft runs thirty revolutions; shall we let it go?' Joe says, 'I don't know.' Men want to know which of the two kinds of babbitt this box is to be poured with. Joe don't know. The leading man of the gang writes to Simpson that young Chordal is a nice fellow and smart as blazes, but don't know anything. Simpson recalls his executive officer, and in a fatherly manner advises him to go into a shop and learn the trade, and tells him he will make his mark. Joe, the superior Joe, made of superior stuff, born to lead in his chosen line, trimmed to fit in the best technical schools, author of a thesis on centrifugal governors having valves unalterably related to the 'centrifugal elements,' this Joe was not born to learn a trade.

"I make no suggestions to Joe, and bid him good-

by as he starts on another Quixotic expedition. Two brief weeks, and I again take his hand. This hand seems to have grown smaller and not quite so self-important in its grip. I ask after his conquests. He grimly and grittily smiles, and proceeds; says he went down to Philadelphia, and went to William Sellers & Co., whom he had been corresponding with ever since he went to college. They build machine-tools; and at college their machine-tools were held up to him as exponents of perfection, as test-channels for design. He is nicely received, and encouragingly talked to. He is asked if he is willing to spend a few years in the shop. He answers he is not born for a machinist, but for an engineer. If Sellers & Co. can put him on a low round of the engineering ladder in some place, he will be very much obliged; if not, then he will see some other parties he wots of. They appreciate the situation, and with real regard for the young man they own to such a ladder being on the premises; nay, more, they acknowledge that some of the lower rounds still remain. Joe is invited to ascend, without any engagement which might result in mortifying termination. He reports next morning with a few classical books, and a kit of drawing instruments of the most marvellous character. Each individual instrument and piece of instrument fits in a velvet bed, and each time he wants to use something back in the case he must dismember the whole thing and screw in all adjusting screws. His eight-inch compasses fit in the case when both triangular points are in, a condition in which no man on earth ever uses them. He looks around among the draughtsmen, and thinks that his

eight-inch compasses cost more than all their instruments put together. He wonders how they can do any refined engineering with such tools, and the other draughtsmen look at his kit and wonder if that young man expects to do any quantity of practical work with such tools, in such a case, and they wonder how long it will be before he will have them loose in a cigar-box. He is given a figured pencil-sketch of a device, and is told to follow the figured sizes and form, but to detail it for shop-use. Do no scheming whatever, but draw only. He does so. The draughtsmen admire the skilful execution, and the powers that be do the same. The lines are clean-cut, nicely joined, and have extra thickness on the shadow side. His drawing is taken away for an hour and returned by his sponsor. It has been in the shop, and Joe expresses his horror at the sacrilege. The sheet is dirty and greasy, and only his fancy shadow-lines can be seen. Joe scorns to ask a question, and suggests that he make the drawing over with heavier lines. He does so; sees a striking resemblance between it and the shop drawings around him, in which he saw little to admire before. His sponsor calls again, and asks if it will be safe to send that drawing to Savannah for pattern-makers and machinists to work from. Joe asks who is going to take it, and is told the mail. Joe says he will write the proper explanations, and does so. Twenty-two pages of legal cap to one sheet of detail drawing. Sponsor asks what the legal cap is for. Joe says it is to explain the drawing. Sponsor asks what the drawing is for. Joe says it is an aid to the legal cap, and in return is told that drawings are sent away daily with-

out a word of explanation. It is the duty of detail drawings to explain themselves fully. Joe sees he has much to learn about drawings. He has mastered the art and that is all. He is now instructed to make a drawing of a two-foot pulley, six-inch face, proportions to be functionally correct. He goes at it. Refers to Rankine and Weisbach and Willis and Fairbairn, but never to Joe. He is too wise for that. He gets his pulley drawn, and is told to go down in the shop and compare it with a pulley of similar size. He does so and doubts his eyes. The arms of the pulley are about eight times as heavy as the arms of his drawing, and he used five as a factor of safety, and the old pulley has two broken arms. He goes back and figures the whole thing over. He takes the data of strains to his sponsor and asks him to run over them. Same results, showing calculation to be right. Sponsor asks him where he got his strain data from. Joe says from the beltage. Sponsor asks him what broke the old pulley. Joe goes in search of knowledge and finds it broken in casting, and he makes his first memorandum of experience, namely: 'Belt-strains are not the heaviest strains a pulley-arm may be subjected to.' His sponsor tells him if he would spend a few years in the shop he would learn several things of value.

"I see Joe again. He tells me confidentially that he is astonished at the number of things he don't know, which he must know before anybody will pay him ten dollars a year for his services. He has spent a year coming to a conclusion, and tells me he will go into my shop. I tell him no; most decidedly not. He must go a hundred miles from me or

any one else he can lean on. He can't get any self-reliance out of my place.

"Joe apprentices himself in a shop, and wisely chooses a bad shop. No reamers, no fancy boring-bars, no twist-drills, no tools big enough for the work, no surfaced-plates, no scraped angle-plates, no system, no nothing. When Joe graduates from this place he will be full of experience indeed, and it is hardly likely that he will be the less appreciative of real facilities when he does get at them. His constant letters will bear constant evidence that he knows the necessity of the step, but feels it a let-down. He can't get into full sympathy with his necessities. He feels out of place, and knows he is not in place. It is mortifying, disagreeable, hard, up-hill work. He holds a college degree, but his soft hands got hard and callous, and big cracks have opened in them, and brass-dust and iron-dust and oil and dirt have got into the cracks, and he always has a rag on some finger. Joe will feel as though he had started wrong in some way.

"At a late educational gathering, Professor Henkle, of Salem, Ohio, wisely stated that 'education is power rather than readiness.' Joe will appreciate this, and will wish the readiness had come first. Joe's post-collegiate shop-life will be a hard one. Now, suppose I don't say college to him; suppose I let him go into some miserable shop which he will be glad to leave for higher fields. Will not the seeds carefully sown by college professors fall in ground thirsty for it, ground which the old and poor and half-satisfying crops of the shop experience only stirred up into sturdy, ambitious receptiveness? Only he who has

been athirst upon the barren plains can appreciatively absorb knowledge of certain water-getting processes. Will it not be better to clean the dirty hands than to dirty the clean ones?

"Do you know of any young man who went from college to shop, and wishes he had reversed the order of things? Do you know of any young man who went from shop to college and wishes he had reversed the order of things?"

Professor Morton says, after a youth gets into practical work it is hard to break off and go to college or to a technical school. Usually he cannot afford to make the pecuniary sacrifice. Yet, the engineer of a local gas-company took the course at Stevens Institute while attending to his daily duties, and graduated with honor.

CHAPTER XXI.

ELEMENTS OF SUCCESS.

What is Success?—Men with a Grievance—Average Success—Opinions of Notable Men—Model Americans—The Lesson of Failure—Jowett's Opinion—Early Success a Drawback—How Not to Succeed.

EVERY young man should strive for comfort and independence. Not every one can draw a prize in the lottery of life. Artemus Ward proposed to organize a regiment in which all would be officers. In real life, however, the rank and file are in the majority. I would not discourage the ambitious, but I wish to make it evident that wealth and honors can be won only by strenuous effort, combined with ability and physical endurance. While the race is not always to the swift, it is never won by the weak, lazy or stupid. The mass of mankind therefore must be content with the average success. Either they lack capacity to fill the higher places, or energy and ambition to strive for them. When two men ride a horse, one must ride behind. The majority gradually abandon their early ambitions and are content to do their duty in the position in which fortune has placed them.

Some men bewail their ill luck, and claim that they have not received their just deserts. In the long run, however, the mass of mankind, so far as material

comforts are concerned, reap as they have sown, and receive a fair return for their labor. Fortune is fickle. Sorrow, sickness and failure come to the rich as to the poor. "The best-laid schemes o' mice an' men gang aft agley." Therefore it is well to accept the inevitable, and not rail at fate and become that pitiable object, "the man with a grievance."

Professor Ely, in his "History of the Labor Movement," says: "It is unwise, nay, cruel, to assume that every youth has a chance to become rich, famous and powerful. In the nature of things the vast majority of men must serve in the ranks, and only the few can become generals, colonels, or even corporals." The world is made up of Lincoln's "plain people," who, as George Eliot says, are the salt of the earth. They have their full share of happiness. I agree with Professor Ely that it would be far better if the superior workman, like Felix Holt and John Burns, would stick to their crafts and help their fellows rather than strive for a position among the professional or commercial class. On the other hand, no one can succeed in a handicraft who has not an aptitude for mechanics. There is no more sense in a boy becoming a shoemaker or stone-mason, simply because his father sat on a bench or handled a trowel, than for the son of the merchant or lawyer to follow blindly in his footsteps.

Bagehot sums up the philosophy of success with his usual acumen: "The prowling faculties will have their way, those who hunger and thirst after riches will have riches, and those who hunger not will not"; and so all success is largely a matter of will and of striving hard for what one deserves.

I am not attempting to elaborate a theory of life as a whole, but only one of its material sides. If success means to be rich and famous, or to have vigor and good looks, then the mass of mankind are not successful. Few men who possess ordinary health and industry fail to earn a living. Thousands and tens of thousands, by prudence and economy, obtain a competence and fill positions of trust and honor. The squire, the deacon, the doctor, the pastor, the local editor, and the mechanic in each community, however small, gain the respect of their neighbors and wield influence not to be despised. These men, who are great in their little world, win recognition by the same qualities which bring success in the larger field.

To the aspiring youth who is not willing to take second place I would cite Emerson's words: "O discontented man, if there is anything you want, pay the price and take it." To the average beginner, I would add, look around and see what people in general have achieved and then ask yourself, Do I deserve more?

An answer to the question, What is average success? is to be found by summarizing the earnings of workers in this country.

Teachers, clergymen, clerks and bookkeepers earn from $300 to $1,000 a year. The 800,000 railroad employees average $60 a month. The 150,000 Government employees, excluding heads of departments, receive from $80 to $150 a month. Even in New York few professional men earn more than a competence. The average income of doctors and dentists is $1,000, and $1,200 to $1,500 that of lawyers. College pro-

fessors' salaries average from $1,470 to $2,015, including those paid to specialists. Governors of the States on an average receive only $3,000. There were 1,600 applicants for the position of letter-carrier in Boston, and 2,100 for a place in the Philadelphia Mint. Positions on the New York police force are eagerly sought after. Let a vacancy occur anywhere with a salary of $1,500, and a hundred professional men will strive for it. It is true these may be the younger or less capable men, but it shows how uncertain is their calling. There were 20,933 names on the New York Civil List in 1896. The following were the average salaries: teachers, under $1,000; policemen, $1,200; firemen and postmen, $1,000; health and building inspectors, $1,500; department clerks, $1,200 to $1,500.

Garfield was fond of repeating:

> "Self-reverence, self-knowledge, self-control,
> These three alone join life to sovereign power."

The first question put to an applicant for any place is, "Are you trustworthy?" Character is far more important than skill. Moral qualities may not count in the mere drudge, but the shiftless, idle, shirking fellow is not wanted by any one. The Bishop of Manchester said: "Success in life is due mainly to plodding industry; and moral qualities count far more than intellectual brilliancy."

True success in the long run comes from merit. Shams won't endure. Even a patent medicine must have some real value to sell for any length of time. Lies don't last. Fidelity, energy and ability always win. It exasperates me to hear people speak of

sharpness and trickery as the only means to success. The trading faculty is excellent in its way, but a good bargain is one that satisfies both buyer and seller. The great merchant scorns petty means, and gains wealth by judgment in planning and by skill in buying goods that the public need at a low price, and then selling them at a profit. Archdeacon Hall said: "In bad times the man who goes first to the wall is the man of little brain, of no imagination, and whose untrained faculties perpetually mortgage the morrow." Franklin said: "The way to wealth is as plain as the way to market. It depends chiefly on two words, industry and frugality; that is, waste neither time nor money, but make the best use of both."

Franklin's example points the way to advancement in any calling. People who saw him working early and late, and wheeling his stock of paper with his own hands to his shop, had no doubts of his success. P. T. Barnum made a vow not to eat a hot luncheon till he had paid for the American Museum, and this little incident won for him his best backer. "Keep thy shop, and thy shop will keep thee," is still the sure method of success.

Napoleon said: "Providence is on the side of the heaviest artillery," but to-day the man behind the gun wins the fight. Von Moltke showed that *esprit de corps* is a vital element in battle. It was a favorite maxim of Macaulay that no author was ever written down but by himself, and that success is to be gained by "industrious thought and patient renunciation of small desires." Sherman held this conversation with Grant at Shiloh: "Well, Grant, we've had the devil's own day, haven't we?" "Yes," he said,

with a short, sharp puff of his cigar; "lick 'em to-morrow, though."

A number of men have recently died, who were typical Americans, who won honors without taint or discredit, and who were good citizens in the best sense. I refer to William Windom, Secretary of the Treasury; Anthony W. Drexel and George Coe among business men; Generals Sherman and Joe Johnston, of the army; the Rev. Drs. Howard Crosby, Furness and Phillips Brooks, in the pulpit; James Redpath, George W. Childs, and Keppler, the artist, in journalism; George Houghton and Roswell Smith, the publishers; Edwin Booth and Lawrence Barrett, among actors; and Gordon Burnham and Richard T. Hunt, the architects. They all left clean records, and their names may well be submitted to the rising generation as examples in contrast to the Wall Street speculators, railroad wreckers, and rascally politicians who have won brief notoriety.

The true object of life should be something far higher than mere material success. To seek fame and fortune is to possess a low standard of achievement. Every man should strive for pecuniary independence, but beyond that "there is only accumulation," as Chauncey Depew says; "he should then seek to be a good citizen, neighbor and patriot." Theodore Parker said: "The best thing which you can get in life is not money, nor what money alone brings with it. You must work for your manhood as much as for your money, and take as much pains to get it and to keep it, too."

P. T. Barnum, the world-renowned showman, would be cited by most persons as an example of remark-

able success, yet he met with repeated failures in early life and remarkable catastrophes in later years. Four times he was burned out. Once after he had become rich he lost his entire fortune, and was saddled with debts that required years to pay. With characteristic grit and hopefulness he persevered, and turned defeat into victory. When lecturing upon "How to Make Money," he jokingly remarked that the title ought to be "How to Lose Money." His success was largely due to the fact that he always gave the public the full worth of its money and never humbugged it, except by the dexterity of his advertising methods. "Alexandre Dumas said: Very often an unexpected grief or an unmerited misfortune gives to a man an energy and a perseverance which he could never find in happiness. And after such trials a man often becomes superior who would have remained simple and vulgar if he had always been happy. One may expect everything from a man of energy to whom misfortune has given courage and ambition." A dash of adversity quickens the wits, as a stimulant does the blood. Great prosperity is apt to be dulling in its effects. George Macdonald says: "The rich man has a monotonous time with his broad expanse of blue sky. The poor man sees deeper into the blue by reason of the clouds that frame it in for him." When we are pushed, defeated, tormented, we have a chance to learn something. Josh Billings was past forty-five before he discovered his vocation. He failed three times as a lecturer before he succeeded. Bill Nye hardly earned his salt at law and journalism, when he suddenly jumped into an income up in the thousands. Hawthorne sat in the Old Manse at

Concord "a long, long time, waiting patiently for the world to know me." Zola and Taine bore pinching poverty before they gained recognition. Edwin Booth failed utterly in London, though supported by Macready. Victorien Sardou endured poverty and bitter disappointment for years. Abraham Lincoln, in his address to the voters of Sangamon County, asking to be chosen to the Legislature, said, with a pathetic reference to his past struggles: "But if the good people in their wisdom shall see fit to keep me in the background, I have been too familiar with disappointments to be very much chagrined."

Jowett in early life suffered many privations. His father, "one of the most innocent of men," was not successful. Jowett, therefore, appreciated the value of worldly advancement. "The clever man, devoid of tact," he says, "often remains an eccentric boor. Success is to be won by absolute disinterestedness and a love of knowledge for its own sake. The most important element is personal fitness. There are three kinds of goods, as our friend Aristotle would say—rank, wealth and talent. It seems to me that a man may do well with two of the three. With the last only, life is a painful struggle." Jowett placed a high value upon the discipline of struggle. "I have had experience of uncomfortable and of comfortable surroundings. When I was uncomfortable, I was perhaps more useful. I believe it to be a very good thing to have had a great row in your life, because, though not quite pleasant at the time, it gives you a position and places you above the world."

Dr. Richardson, one of the most successful writers and lecturers on hygiene, had his first manuscript, a

gold medal prize essay on "Diseases of the Fœtus in Utero," rejected by a publisher, who thought the title demonstrated that the author could not write anything the world would read. He thereafter cultivated a popular and untechnical style of writing, which attracted many readers. Matthew Arnold expressed gratitude and surprise at finding his productions accepted by the public. He modestly ascribed his success to the fact that it had been given to him "to find more things which others might also have discovered than that he had seized or invented them by superior power and merit."

Sometimes the best way to prove a principle or rule of action is to reverse it. To the youth who doubts the value of industry, intelligence, energy, pluck and character in bringing success, I would offer these brazen rules:

HOW NOT TO SUCCEED IN LIFE.

I will shut my eyes to all noble ideas. I will keep myself in ignorance of all that men have discovered and thought, in science, literature and art. I will cultivate a love of ease and self-indulgence. I will dissipate and foster extravagant habits. I will shirk honest effort, and try to earn the most pay for the least work. I will hate my fellow-men and try always to get the better of them, on the principle that you must "do" them or they will "do" you. I will love money and bow down to the Golden Calf. I will never cherish a lofty ambition or do a generous act. I will associate only with my inferiors and with people who will drag me down to their level. I will avoid churches, libraries, lectures, concerts and all

other good agencies. I will never marry, because it costs too much to support a wife and family. I will never vote, because it is a waste of time. I will never stop trying to make money because I want to get rich as fast as I can. In short, I will love only myself, think only of myself, and ever strive to get the better of the other fellow.

How many young men have practically adopted this creed? In how many cases has it brought success?

The coming men who are destined to do the world's work are striving and planning: on the farm, like Garfield; or sailing on the Mississippi, like Lincoln and Mark Twain; in the steerage of the immigrant ship, like John Roach; carrying newspapers, like David B. Hill and Charles O'Conor; setting type in the country printing-office, like Horace Greeley and W. D. Howells; or teaching school, as so many thousands of famous Americans have done.

Some will fall by the wayside. Some will yield to sickness or to bad habits. Those who succeed will do so by patient, persistent and honest work.

CHAPTER XXII.

BUSINESS.

Meaning of the Word—Training for Business—Boyish Experiments—Andrew Carnegie on Business Success—Folly of Speculating—High Salaries—Value of Prestige—Methods of Making Money—Foresight—Mastery of Details—Thrift—The Risks of Business—How to Win Promotion—How to Fail in Business.

BUSINESS is a word of broad significance. I am concerned only with its commercial meaning, which includes mercantile pursuits, finance, keeping accounts, trade and commerce, mining and manufacturing.

Business gives scope for the exercise of the highest faculties; industry, energy, judgment, and all the best traits of human nature. No one will deny that the business man performs invaluable service to society.

The prejudice against trade is fast disappearing, even in the Old World. In England the members of a recent Conservative cabinet held sixty-four directorships in various companies. The question there is, not how to keep out of trade, but how to get into it. President Carnot of the French Republic was a business man all his days. "Business is not all dollars; these are but the shell, the kernel lies within, and is to be enjoyed later, as the higher faculties of the business man, so constantly called into play, develop and mature."

Krupp, the gun-maker, who rules over a dominion, and employs more men in his industrial army than many petty German kings had under their banners, refused the title of Prince of the Empire, and preferred to remain Prince of Steel. There is plenty of romance, as of honors, in business, if we have eyes to see, while the noble benefactions of business men are our national pride.

Schopenhauer, whose father was a merchant, had a special respect for merchants, because, he said, they are more liberal and generous than others.

Mr. Carnegie says a salaried man is not a business man. Many large corporations, however, are directed by salaried men, from the president down. The Pennsylvania Railroad and the Equitable Insurance Company are colossal business enterprises, yet both are directed by salaried officers, who are responsible only to the stockholders.

Caleb Garth, in "Middlemarch," always spoke of business with respect. "It's a fine thing to come to a man when he's seen into the nature of business: to have the chance of getting a bit of the country into good fettle, as they say, and putting men into the right way with their farming, and getting a bit of good contriving and solid building done, that those who are living and those who come after will be the better for. I'd sooner have it than a fortune. I hold it the most honorable work that is."

And who can help being powerfully moved by the spectacle of the world's army of workers, with hammer, saw, spade or drill; with the clank and clang of machinery, and the wonderful mechanical appliances of the present period? Lowell spoke of London as

"the roaring loom of time." Walt Whitman, or possibly Kipling alone, could fitly describe the vastness and intricacy of modern material processes; on the farm, in the mill, at the forge, the loom, the lathe, the press; amid whirling fly-wheels and shuttles; digging and delving in mines; grinding, refining and extracting ores by chemical processes; driving ships and steamers through ice and fog; quarrying stone, hewing forests, building roads and bridges, canals, aqueducts; preparing food and drink for the millions; building ironclads, forts and lighthouses. All these are included in the word business.

Creating and producing material things, making two blades of grass grow where but one grew before, appeal to the imagination far more than bartering, book-keeping and financiering. These latter, notwithstanding, have their attractions. The methods of banking, exchange, currency, taxation and tariffs deeply concern the whole community, and should be understood by every business man. Let no one fancy for a moment that he can succeed in business without study and observation. Stephen Girard, A. T. Stewart, Peabody, Wanamaker, Carnegie, Armour and Leiter did not tumble into success by sheer luck, but won their wealth by close study, patient reflection, and hard work.

The magnitude of the business of the metropolis may be shown by a few figures. In the drygoods district there are $900,000,000 worth of insurable goods, exclusive of buildings, furniture and fixtures. Wanamaker's store contains a stock worth $11,000,000, and Macy's one of $6,000,000. The goods stored in three or four business districts would more than

pay the national debt. The clothing district represents hundreds of millions. The little jewelry district is one of the richest areas in the world. Some of the most precious articles, in proportion to bulk, are stored in drug, chemical and perfumery houses. The book-publishing district is stocked with many million dollars' worth of books. Single buildings with their contents, and the land they occupy, are worth more than the assessed value of many a rural county.

The theory that trade offers the largest returns for the least capacity is exploded. Success in business, as in any other calling, depends on aptitude and training. The merchant or banker must study as hard if not harder than the lawyer or doctor, while he further labors under the disadvantage of having constantly to meet new conditions which seem to defy prevision. The country is no longer sparsely settled. Competition cuts abnormal profits out of new enterprises. To be conspicuously successful in any branch of trade, one needs unusual ability, untiring application and thorough training.

Mr. Carnegie extols the college graduate. "All other things being equal between two bright young men, one having a finished education and the other struggling along without a scholastic and scientific training, the former ought to outstrip the latter in the race." The danger is, however, that the broad education of the college man will give him tastes above business, and cause business duties to be irksome. On the other hand, his less-favored fellow, by the very necessities of the case, becomes a business specialist, and this is the age of successful spe-

cialization. Mr. Carnegie's ideal of a business man is an all-around man, well grounded in business knowledge, and able to hold a position in the best society. Some ambitious men fail to appreciate the importance of this last qualification. If they would follow Mr. Carnegie's advice, and frankly acknowledge at the end of their college course that they are beginners in business, they would overcome this objection in very short order.

Harvey E. Fisk, the New York banker, discussing the value of thorough training to a business man, lays special stress upon the importance of the study of the English language and literature, and of being able to express one's self in pure English. "We think we know our own language intuitively, but only by constant practice and careful study can ease and clearness be acquired. It is a great advantage for any one to be able to draft properly an agreement, or write a good letter, and these gifts will aid the business no less than the professional man. It is an advantage for a clerk to be able to explain clearly what he knows. Anything that helps to this end is valuable. Practice in a debating-club may make a man a better salesman."

Bagehot remarks that "the instinctive habit of applied calculation" is essential to a merchant, as well as extremely useful to a statesman.

R. R. Bowker, in "Economics for the People," tells how he learned business methods in early life. "When I was a boy I liked to buy and sell, with pins as 'make-believe' money. Then I began to collect stamps. I had a friend whose father used to trade with South America and had stacks of musty

old letters with the rare big-number Brazil stamps. Of course he wanted only one of a kind of this collection, and was glad to trade off others for some of my European stamps. I lived in New York, and there I could get for the big Brazils more stamps than I gave, or could sell them to the dealers for money. Presently I hit on a plan the dealers had not then thought of. I bought small pieces of English and French gold, and sent them in letters to postmasters in the colonies, asking them to send the money's worth in unused small stamps. Some of them I never heard from, but the others sent me enough to pay all the losses, and a profit beside, when I sold my stock to the dealers. Then I opened correspondence with a Liverpool stamp dealer and with one in Hamburg, buying United States stamps to send them. I made quite a little money, which I found I could put in the savings-bank so as to get interest, and I got a collection worth a hundred dollars, beside learning from postage stamps, as any thinking boy does, a good deal of geography and history." Mr. Bowker is now vice-president of the Edison Company, where he has shown great executive ability.

At one of the Twilight Club dinners, a number of representative men told how they obtained their first earnings. One man sawed wood, another practised law, another strung tobacco, others raised potatoes, acted as treasurer of a mission fund, worked in a button factory, read to a blind man, built school fires, piçked wintergreen, served aboard a ship, ran errands, piled up cordwood. A *Sun* reporter questioned a number of prominent New Yorkers on the same

subject. One man had polished shoes, another had peddled newspapers, a third had sold peanuts at a county fair. Joel Erhardt earned his first money by extra duty as a letter carrier on Valentine's Day. Attorney-General Russel, when sixteen, taught school. Elihu Root picked strawberries in Oneida County to get money to buy firecrackers. Henry Clews, at fourteen, earned $5 a week as a clerk.

Andrew Carnegie, writing on the subject, "How a Young Man Can Succeed," said: "Begin at the beginning, but aim high. I would not give a fig for a young man who does not already see himself the partner or the head of some important firm. Many business men of Pittsburg, like myself, began by sweeping out the office, including David McCargo, Superintendent of the Allegheny Valley Railroad, Robert Pitcairn, Superintendent of the Pennsylvania Railroad, and Mr. Moreland, City Attorney. There are three dangers: drinking, speculation, and endorsing. There is scarcely an instance of a man who has made a fortune by speculation and kept it. Nothing is more essential than untarnished credit, and nothing kills credit sooner than the knowledge of any bank board that a man engages in speculation. How can a man be credited whose resources may be swept away in one hour by a panic?"

Speculation has ruined thousands. No matter how able the man, speculation will absorb his last dollar. Even Jay Gould made no money on 'the Street.' The old Commodore used to say to William H. Vanderbilt, 'Billy, the men who take seven per cent interest will have all the money in time.' Delmonico's profits averaged a quarter of a million annually, yet,

not content with this, Charles Delmonico dropped $750,000 in Wall Street in two years.

The third danger is endorsing notes. It appeals to your generous instincts; therefore, the practice is so dangerous. When a man in debt endorses for another, he risks the money of his own creditors. Never do it unless you have cash means beyond your debts, and never endorse beyond your means.

"The rising man must do something exceptional, and must attract attention. Your employer must find out that he has not got a mere hireling in his service, but a man who devotes his spare time and constant thought to the business. Our young partners won their spurs by showing that we did not know half as well what was wanted as they did."

"Here is the prime condition of success: concentrate your energy, thought and capital exclusively upon the business in which you are engaged. Having begun in one line, resolve to fight it out on that line, to lead in it. Adopt every improvement, have the best machinery, and know the most about it. Finally, do not be impatient, for, as Emerson says, 'No one can cheat you out of ultimate success but yourself.'"

Mr. Carnegie, who is a past master on the subject, points out that it is fortunate for poor young men that the sons of rich parents do not always inherit wealth-acquiring faculties. If they did, a few favored families would soon monopolize everything. Fortunes are accumulated and then are scattered, thus giving new men a chance. Mr. Carnegie appreciates the value of failure, and states that the best em-

ployees are often men who have not succeeded on their own account.

"The successful young man is usually not burdened with wealth. It is necessary that he make his own way. He has no rich father, or, still more dangerous, rich mother, who can, and will, support him in idleness should he prove a failure. He has no life preserver; he must sink or swim. Those who fail may say that this or that man had great advantages, the fates were propitious, conditions favorable. Now there is very little in this. One man lands in the middle of a stream which he tries to jump, and is swept away. Another tries the same feat, and lands upon the other side."

Leaders in war, politics, and business are few. As the talent for leadership is rare, it is necessarily valuable. It is not simply money that brings success. Without ability wealth is wasted.

Men capable of conducting large enterprises prefer to be their own employers. It is for this, and not for the amount of work performed, that great companies gladly pay princely salaries to their managers. The buyer for a New York department store has a salary of $16,000, besides an interest in the profits. He has $250,000 laid by. Other men in the same line receive salaries ranging from eight to twelve thousand dollars. These amounts are above the average salaries; but the best taste and judgment and business capacity cannot be purchased for much less. The practice in the bigger, newer and more successful houses is to allow the buyer to manage the business as if it were his own. Several big stores have been established by men who learned the business as

buyers, and incidentally gained the confidence of wholesale merchants, who furnished them with credit and capital to start for themselves.

Mr. Carnegie advises the beginner to prefer a business which is owned by its managers rather than a corporation, directed by salaried agents of a thousand shifting stockholders. It does not matter very much where you enter, but where you come out. Do not be fastidious, take what the gods offer, always keeping your eye open for a chance to become interested in a business of your own, and remember that every business can be made successful. Capital is always on the lookout for managing men and directing minds, and the supply is never superabundant. Business requires fresh blood for its existence.

"Prestige is a great matter. A young man who has the record of doing what he sets out to do will find, year after year, his field of operation extended, and the tasks committed to him greater and greater. On the other hand, the man who has to admit failure, and comes to friends trying to get assistance in order to make a good second start, is in a very bad position indeed."

Mr. Carnegie believes in sticking to one thing. "Put your eggs in one basket and then watch the basket. A man can thoroughly master only one business, and only if he be an able man can he do this. I have never yet met the man who fully understood two different kinds of business. You cannot find him any sooner than you can find a man who can think in two languages equally well, and who does not invariably think only in one. Subdivision, specialization, is the order of the day."

The methods of making money are simple in the abstract. Any one who can produce something and can sell it at more than cost will prosper. It makes no difference whether it is a necessity or a luxury, as long as there is a demand for it. Food, clothing, furniture, houses, ships, machinery, fuel, jewelry, books, works of art, liquors and cigars, if they can be sold at a profit, will make their owners rich in time. It is the same with skill in any calling. The man who can perform any service either with his hands or with his brain, which other people will pay for, can make money, provided he can live on less than he earns. The first man in any calling can command his own price. When rival firms start, or when any article can be made more cheaply and thus command a wider sale, its selling-price will go down. The maker or dealer will probably make as much money through larger sales, at a lower rate of profit. Pretty soon competition will lead to a falling-off in the article. The material will be adulterated, or the work on it will be "scamped." The buyer in consequence is swindled. Every salable article is imitated, and the sham may sell as well, or better, than the genuine product. Wages will also be cut down to reduce the cost of production. Furthermore, to promote sales excessive credit will be given, and undue expenses in the shape of rent, advertising and salaries incurred. Large concerns with ample capital are able to buy at a lower rate and sell goods at a smaller margin than small firms, and hence the latter are driven to the wall.

The fact that so few merchants escape bankruptcy shows the risks and uncertainties of business.

Nevertheless, the man who sticks to and masters his business, does not expand too fast, sells to safe customers, on a small margin of profit, and on short credit, is just as likely to make money now as at any time.

The causes of business failures are stated by the commercial agencies to be extravagance in living, cut-throat competition, doing business on credit or with insufficient capital, endorsing other men's notes, speculation, and providential disaster, like fires and floods. Yet thousands of men all over the world have earned a competence by careful and persistent effort, and their example might be followed to-day with good results. It is not chance or luck or accident that makes some succeed where others fail, but shrewdness, prudence and making the best use of opportunities.

"There is no secret about it," said Commodore Vanderbilt. "All you have to do is to attend to your business and go ahead, and never tell what you are going to do until you have done it." Asa Packer told an acquaintance: "If I could make money at eighteen, carrying vegetables to market on an old scow, I knew I could get rich in after life if I only had my health." George Law remarked: "There is nothing so easy as making money when you have money to make it with; the only thing is to see the crisis and take it at its flood." Being further pressed to tell the secret of his own success, he quickly responded: "Determination to work, and working." Rothschild declared: "Never have anything to do with an unlucky man. Be cautious and bold. Make a bargain at once." Theodore Havemeyer studied,

at first hand, every process in the refining of sugar. He invented so many improvements that he could sell sixteen pounds of sugar at a profit of only one cent, and still make a fortune. A. T. Stewart early laid down certain rules, which have since become almost universal. First, he never let a clerk misrepresent his wares. "Nothing can need a lie." Second, he stuck to one price, no matter whether the goods were sold or not. Third, he required "cash on delivery." In after years he sometimes gave credit.

"A man has got to do a smashing business nowadays to make a cent," said an old banker, "owing to the competition in financial, commercial and manufacturing circles. In the old days the expenses of doing business were a trifle compared to the capital now required, and the heads of great houses did not have to slave like laborers to retain their prestige. One frequently hears remarks about the easy times of great financiers and other Wall Street men, but the worriments, the hundreds of sources of trouble and exasperation in their daily lives, are beyond the knowledge of the critics. I say to young men, work, but do not gamble. A great many men have had millions at their command. In every instance they were workers, not gamblers. They made a place for themselves. The Vanderbilts, the Garretts, the Drexels, the Astors have not been drones. If some have failed, it is because these rules of action have not been vigorously followed. Circumstances are not always to blame. 'The fault is not in our stars, but in ourselves that we are underlings.'" Eugene Kelley, the banker, said: "The young men of to-day should

copy after good, moral men, and follow their line of integrity and unremitting attention to business. They must be honest even in thought." "All the advice in the world," said Abram Hewitt, "won't make a young man rich. I tell my children to tell the truth and work. This, I believe, covers the situation." Russell Sage considers: "There is one prime requisite—brains. Then a young man must be saving, industrious, patient, respectful and cautious. Above all, he should not speculate. The passion for speculation ruins ten out of every hundred young men. He should have a legitimate business, and stick to it. I have been frequently asked if it were necessary to go West; I always say, No. Why? Because, if you want to make money, stay where there is money. The frontier is not apt to give a man the opportunities that New York furnishes—I mean the sources of information necessary to get wealth. Always be close to people with information. Try and increase your information to keep pace with theirs, and you will profit by the experience. A good many think that a liquor store is the only place to get money, but I have never known a very rich liquor seller. There are just as many opportunities to gain wealth in New York as there ever were."

On the other hand, Thomas L. James urges young men to leave the crowded city and go to a smaller place to expand. "The man who has the grit to get out of a big city has generally the staying qualities to make a success in a new field of life. Under no circumstances speculate. As for gaining money by gambling on horse racing, it is easy come and easy go."

Meiggs, the great South American railroad promoter, in 1848 took a ship-load of lumber to California and sold it at a profit of $50,000. Foreseeing the growth of San Francisco and the need of lumber for building purposes, he hired five hundred men and sent them into the forest. He hauled the logs to the shore, made rafts, and floated them to a wharf in the city, where he had them converted into lumber at a steam sawmill. This foresight and pluck netted him $500,000 in gold. Another secret of his after success was that in ordering rolling stock, engines, cars, etc., he always wanted "nothing but the very best."

When the Pennsylvania oil supply began to give out, the Standard Oil Company bought large oil tracts in Ohio. The product was found to contain certain impurities. This would have disheartened most men, but Mr. Rockefeller believed that Providence had not stored up a product fitted for human consumption without intending that it should be utilized.

He determined to adapt the product to the market. He spent a small fortune in constructing refineries. As a result, before the works were finished, his chemist was able to refine the oil in a satisfactory manner. If the experiment had failed, Mr. Rockefeller would have been called a fool, but as it succeeded no one could criticise him.

C. P. Huntington ascribes his success to his mastery of details. "When I was a boy in a store, I learned that whenever I saw a one-penny nail on the floor it was my duty to pick it up and not wait until I found a ten-penny nail. The details of business are as important as the great results." He tired out

stenographer after stenographer, and his clerks could never keep up with him. He was at his office at 7:30, never leaving before 6. Not a detail in connection with his vast interests escaped his personal supervision. He wasted no time in dissipation. He went to bed at 9:30, and slept eight hours. On the other hand, Commodore Vanderbilt detested details and only gave his mind to large affairs. When asked how he could conduct his extensive business, and yet leave daily at four o'clock to drive, he answered: "It's easy enough. All you want is a box of good cigars and a check-book." When he bought a block of Harlem stock from Mr. Garrison he insisted on seeing the stock piled in a small room in Bowling Green before he would give his check. I was told this story in the very room in which the incident occurred.

The records of the New York Probate Court show that only one man in four on his death leaves any property. The same condition of affairs prevails elsewhere. The great bulk of savings-bank deposits are held by the few. The Massachusetts Labor Bureau found in ninety savings banks $3,375,379 deposits in sums under $50, while $12,000,000 were in sums over $300. The latter represented the well-to-do. This shows how few persons save money for a rainy day. It also makes evident the importance of cultivating habits of thrift in early life.

A witty Englishman remarked in his wife's hearing, "I married without a fortune." "But," she replied, "you had your magnificent intellect." "True, my dear, but I could not endow you with that." So it is with all brain-workers. They should therefore insure their lives against the calamities of life, just

as every careful merchant keeps a reserve fund for contingencies, in the shape of Government bonds or other negotiable securities.

The human brain is a most sensitive organ. It works best when free from worry and care. The best antidotes for brain-fag and anxiety is a life insurance policy in a sound company.

To get the full worth of life insurance, begin young, when premiums are low and it is easy to make payments. Your policy will all the sooner become a security to borrow money on in case of need. Many sagacious men take out policies on their sons' lives before they are of age. Very often a little cash in hand may ward off disaster, or enable a man to share in a new venture with great advantages. A life insurance policy may serve as security for raising the necessary sum, when no other assets exist.

Joseph H. Walker, of Worcester, Mass., made a careful study of those who had been representative business men of that locality for half a century. As Worcester is an old city, in a long-settled State, the fluctuations of business were naturally less than in the new cities of the West. Of 156 men prominent in 1845, 25 went out of business within five years, 50 in ten years, and 67 in fifteen years. Among leading manufacturers in 1840, 14 failed, and 14 died or retired with property. Of the same class in 1845, 41 failed, and 30 died or retired with property. Of the same class in 1850, 43 failed, and 60 died or retired with property. These were picked men, and the showing is more favorable on that account.

Of 15,508 failures reported in 1893, incompetence, inexperience, unwise credits, extravagance, neglect,

speculation and fraud caused 6,214, or two-fifths of the whole, while failures of others, competition and disaster were responsible for only 4,100, the remaining 5,194, or less than one-third, being due to lack of capital. This total does not include 100,000 concerns which simply dropped out of the race. As about a million firms and individuals were doing business in 1893, the disastrous failures were about 1½ per cent, while the other class amounted to one-tenth of the whole. At this rate the failures from all causes would in about nine years amount to 90 per cent of the whole, which seems to support the common assertion that less than one-tenth of business men succeed permanently. The year 1891, however, was an exceptional one. During the twelve preceding years the business failures averaged 9,256, while 96,000 other firms went out of business, or nearly 10 per cent of the whole.

The head of a large brick-making firm remarks on the subject of business failures, particularly among the established firms: "There is probably no field of activity wherein people are so chimerical and fanciful as the business field. The business world is simply teeming with men who start out to attain the impossible—for them. They launch their ventures either without sufficient capital or without experience, and without any conception of those governing principles which, in the long run, control success or failure in trade. Get an insight, for a moment, into the business of nine concerns out of ten, and you will discover the most loose-jointed management. Little is done in a precise way. System and nicely ordered regulations are entirely absent. The concern jogs along

from day to day like a horse-car off the rails. The slightest strain beyond the ordinary, or the least unexpected mishap, is enough to bring everything to a standstill. Those old concerns that, to everybody's surprise, go under, fail chiefly because they have lost the power to adapt themselves readily to new conditions. They get in a rut. Every ten years now produce a revolution in trade. In my business, the bulk of sales to-day are of articles which ten years ago were either unknown, or were goods with a doubtful future before them. If we had stuck doggedly or blindly to the old lines, any one of our wide-awake competitors would have crept ahead of us. The novelty of yesterday becomes the staple of to-day, and the staple of yesterday a drug on the market. One must be watchful, abreast of the times, ready to recognize speedily new instrumentalities of value, and adopt them. To use the boat-builder's phrase, one must not be 'outbuilt.' "

The Metal Worker cites the opinion of manufacturers about the difficulty of getting competent and conscientious subordinates. One employer said: "They will ask permission to go to a ball-game or a boat-race, without considering whether our interests should not be paramount to their pleasure. In our entire establishment I do not know of one man who is eligible for promotion in case of the death or retirement of one of the firm." Another employer remarks: "I have an average lot of clerks and salesmen, but their chances of succeeding the present heads of the business are mighty small. Any one of them could secure a place in the firm in five years, without capital, if he were disposed to work for

it. It is surprising how few young men look ahead and see the chance of promotion, if they will only earn it."

Here is an incident which illustrates individual peculiarities. A young man who applied for a clerkship was told to give a sample of his handwriting. He at first objected to the penholder, and took one of peculiar form out of his pocket. He then said he was not accustomed to write at a high desk. When asked to add several columns of figures he got rattled because the employer timed him while doing it. He consequently failed to get the place. It was given to another applicant, who made no objections to the examination, but went through it calmly and quietly. When asked the name of his former employer, he answered that he came from a farm and had attended a business college, where daily practice was given in concentration of thought. He added, "I believe I could write on the side of a haystack and figure at an auction."

The following observations on "How to Fail in Business" were written for *The Outlook*, by William Whiting, the New England paper manufacturer. They are so valuable that I copy them in full: "When I was a boy I used to think that the storekeepers were about the most comfortably fixed of any class in the community. I always saw them taking in money, and I wondered what they did with it all. What I did not see or think of was the bills they had to pay, and their losses and expenses. My views as a boy illustrate very well the way that every man who is an outsider looks at the business of another. Almost invariably he sees the pleasant side, and that

may be no more than a shell of prosperous appearances. Only the man inside knows the weak points of his business, and the best business has weak points. It does a firm no good to have these advertised, and the men inside simply guard them and keep silent.

"Whether you buy out a business or start anew, you will find the greatest difficulty in fairly realizing the dangers and contingencies of it beforehand. In ninety-nine cases out of one hundred you will find you have under-estimated expenses. It is easy to figure out a profit as an outsider. It is difficult to realize that profit as an insider.

"A danger that the younger men, and those who take up a new business, are apt to encounter, lies in their eagerness to branch out, to make improvements, and to abandon the moss-grown methods of their predecessors. This all sounds very well, but in practice it too often results in disaster. As an instance, there are the Baring Brothers, an old house of conservative spirit and the greatest supposed stability. Their failure was the result of the enterprise of new members of the firm, who found the old ways too slow and narrow. The only safe course in business is to hang on to sure things, to make changes gradually, and only after the most careful consideration.

"The tendency in our country is to extend one's business too rapidly, to depend too much on futures, to spread out too thin the capital that is absolutely one's own. We attempt rather more than we can handle comfortably. It is wise to undertake only what we can do well. The English understand this point better than we do. Their business talent, as a

nation, is remarkable. When they get a grip on a good thing, they hang on to it steadfastly, year in and year out.

"It is astonishing how seductive business is. All classes, experienced and inexperienced, will undertake hopefully the most doubtful ventures. I know a laboring man who, within six months of the time he came to this country as an emigrant, raised seven hundred dollars among his friends, and started a grocery store. He had not an atom of experience, but things looked promising until the expenses began to roll up and his money was spent. Then he got cramped, he could not keep a good stock, customers left him, and he lost all he had. At the other extreme, I know of an elderly man who, at the age of seventy, went into a new business and invested his entire fortune of three-quarters of a million dollars. He had competitors who had such natural advantages over him in the placing of their plants that he was ruined. There is no end of people, both rich and poor, who make these sanguine failures every year. We too readily attempt the management of a business that is new to us, and we too readily invest the profits of our own business in enterprises of which we have no personal knowledge. The man does best in the long run who sticks to his own business, is chary of outside responsibilities and schemes, and invests his surplus that must go outside safely at six per cent.

"A good deal of trouble could be avoided if men realized that business runs in cycles. For instance, I look upon the next ten years in this way. Almost all manufacturing has been stimulated to over-

production. If all the mills ran full time, they would produce a considerable per cent more than could be consumed. Therefore, in the next three years excess of competition and short product will make profits light. By that time the natural increase of demand, coupled with the fact that capital has been deterred by small returns from investing in new mills, will make profits fairly good. Finally, in the last three or four years of the decade profits will be high. Then will come a rush of new mills, over-production, and stagnation again.

"The mills built at the end of the high-profit period are the ones that have the hardest time. The cost of the plant, and the expenses of starting and making a place in the market for goods there is no call for, bring failure to some, and to others a harassing and lifelong burden of debt.

"It is dangerous for even a well-established concern to calculate that the high-profit period will be continuous. The tendency is to reinvest all surplus and not carry enough reserve, and there comes a pinch in the light years, or when some heavy and unforeseen expenditure becomes necessary.

"Besides all this there is the wear and tear on machinery, and its liability to be superseded by that which is better. The novice who is about to invest in a mill rarely thinks of this item, yet it amounts to five or ten per cent of the original cost of the machinery yearly. Many firms have failed because they did not give proper attention to this point. It is only a question of time when out-of-date machinery alone will swamp a concern.

"In starting in a business, there is nothing like

entering on one that is old and well established, if you can get it at the right price. If it is successful and profitable, it is a good investment even at a handsome bonus. At the same time, if you have not had wide business experience and a thorough knowledge of the particular field you propose entering, the chances are you will take too rosy a view of it.

"Trading, to a disinterested outsider, must often have almost the appearance of robbery. The buyer cares little for 'inventory' prices and 'fair estimates.' He will often put in the knife, and scale these down a third or a half, and refuse to talk except on that basis. On the other hand, if the seller has the advantage, he will squeeze the buyer to the same extent. In our present hard times it is the buyer who crowds down prices, and, with the risk he takes, there is need for his severity. The man who is not a sharp buyer courts failure.

"The younger business men frequently find a pitfall in business speculation; that is, they do not study to supply the natural demand simply, but to find large profits in chance changes of prices. Yet I never knew any one smart enough always to buy low and sell high, to carry a large stock over to a high-priced period, and a small stock over to a low-priced period. If they make once they lose twice, and the older men avoid engaging in such transactions. In panics or booms it does not pay to get either scared or excited.

"The young business man is also too easily induced to put his name on notes and bonds, to accommodate his friends. He can best assure his success by not obligating himself at all. As for his friends, they

will, in majority of cases, be better off if they find it difficult to borrow. It is unfortunate for a man to be able to borrow money too easily. He does not feel the responsibility he should, and it slips through his fingers. He not only cripples himself, but the weaker of those who lent him their name.

"Beside the dangers mentioned that are not apt to be foreseen and discounted by the man going into business, are losses by bad bills, by fire or accident, by dishonest help, by sickness, and by personal extravagance. There will be some bad bills anyway, and there should always be some reserve to meet the possibility of these, and of fire and accident. As for dishonesty, there are a thousand ways in which it can creep in. Safety can come only in a thorough knowledge of the business from top to bottom, and a personal overseeing and testing. It is essential, too, that the books be examined occasionally. This examination does not mean suspicion of the help, but is made on the general principle that supposed trustworthiness has in the past failed, and lightning strikes in unexpected places.

"Sickness is more serious in a small business than in a large one. A well-organized manufacturing concern will move along smoothly of its own weight for any moderate length of time.

"In the matter of personal expenses, the American tendency is to increase them fully as fast as the business will warrant. Yet the men who are working up to the largest success live more quietly than their neighbors who are at present equally prosperous. A fine house and fine living, and a place in the upper circle of fashionable society, are questionable things

for the young business man to aspire to. In reality, a man's success depends largely on his wife. If she is ambitious and showy in her tastes, she will use both her husband's time and money with dangerous freedom. If the wife is economical, and counts the cost in her plans and expenditures, she is a great help.

"In the use of his free time after business hours, I suppose that what is best is not half the night spent at the club, or in society, but a quiet evening spent at home, and an early hour for retiring; at least, that method is best, as a rule. It is said that Armour, the wealthy Chicago business man, retires invariably at nine o'clock. No matter what the circumstances are, even if company is present, at that hour he begs to be excused and leaves the room. It is of great advantage for a man to get up with a clear head. He needs to feel well to do his best in business, just as in anything else.

"As to whether culture has a pecuniary value to a business man, I should say, Yes. Reading and wide knowledge mellow a man's opinion, and he can treat questions that come up more broadly than otherwise. He will look at a proposition more fairly and thoroughly.

"The sum of the matter is that a man had far better make less money than to take too large risks, even in his own business; and outside ventures should be regarded doubtfully, always. For there is no worry that will kill a man quicker than business worry, and many die of this who have a very different disease set against their names in the news items of the papers. It is easy enough to realize the true value

of these things we have been talking over now. The time to think of them, however, is in the good years, when everything booms with the promise of large gains."

Professional men often assert that if they had devoted the same time and energy to business which they have given to their profession they would have been better off pecuniarily. They forget that special capacity is needed to succeed in any occupation and that they may lack business faculty. Furthermore, they compare themselves only with the merchants and manufacturers who have made money, and forget the hundreds of thousands who never rise above subordinate positions, and the legion who have failed in business.

The great army of clerks, salesmen, book-keepers and accountants receive small pay, and have little chance of advancement. The professional man, if he is shrewd and energetic, continually finds opportunities for bettering himself. At the same time he is not tied down to a desk or forced to work in a rut, like many employees. Again, the professional man gains valuable experience, which broadens the mind and fits him for new opportunities, while the clerk too often becomes a mere machine.

After the panic of 1893, in one week, seven old New York firms, some of them of sixty years' standing, went into liquidation. Dry rot assails business concerns as it does old hulks, and new methods and fresh energy are needed to meet new conditions.

A profession may not be so profitable as some forms of business, but it involves less risk. The professional man may not make a fortune, but on the

other hand he cannot lose one, except by speculation. If he shows ordinary capacity and industry, he at least gains independence, a good social position and a comfortable living. An income of $3,000, which is a fair average for a professional man, is equivalent to three per cent on $100,000. Such a capital in business should bring in a larger return, yet it often does not, and it may be swept away by a turn of the market, and leave its possessor bankrupt. Again, few men get rich from legitimate business, but many do from real estate investments, which professional men with equal shrewdness and prudence can make.

The merchant's stock of goods may deteriorate, the manufacturer's machinery wears out and needs replacing, profits will be cut down by competition and bad debts, and in other ways the business man's entire capital may be depleted. On the other hand, the professional man's skill, which is his chief capital, should increase with growing experience.

No one should enter a profession hoping to lead an *easy* life. The lawyer, doctor, clergyman, engineer or architect must work as hard as the merchant or manufacturer, and may have to wait years before he can earn more than his expenses. The lower ranks of all professions are overcrowded. To gain first place one must "toil terribly." Again, no one should select a profession unless he has a liking for it. You must love your work if you expect to succeed in it. It is arrant folly to make a boy study medicine or law who has no taste for books or love of learning. Neither should a youth enter a profession solely to make money. He must appreciate professional honor and love his work independently of its

pecuniary rewards, or he will be only a time-server and bread-winner.

Andrew Carnegie ranks a profession above a business career, because money-making is not the sole object in the former. He considers, however, that greater breadth of mind is produced by business experience than by professional practice. The latter he thinks, strengthens but contracts the mind. On the other hand, the great merchant or manufacturer must have a broad and liberal mind. He must be a judge of men, have the gift of organization, understand economical laws and have executive ability. He must know other countries as well as his own. "Nothing," says Mr. Carnegie, "of moment can happen which has not its bearing upon his action; political complications at Constantinople; the appearance of the cholera in the East; a monsoon in India; the supply of gold at Cripple Creek; the appearance of the Colorado beetle; the fall of a ministry; the danger of war, or the likelihood of arbitration compelling settlement—nothing can happen in any part of the world which he has not to consider." In reply to this it is sufficient to mention the public service performed by professional men in shaping legislation, even in dealing with purely commercial questions like the tariff or currency. Mr. Carnegie is a type of broad-minded, liberal and cultured men, but he is one in a hundred. Most merchants, manufacturers and even bankers take a narrow view of events in which their individual interests are not at stake.

Reference has been made in previous chapters to the demand for capable men to fill executive positions, and the advantages of business capacity to a

professional man. This is illustrated by the following partial record of the graduates of three leading American engineering schools. Of 1,070 graduates from the Rensselaer Polytechnic Institute (Troy), 33 are presidents of corporations, 121 vice-presidents, managers and superintendents, 69 practising engineers, 56 professors in colleges. Of 551 graduates of Stevens Institute, 209 are managers and superintendents, 54 consulting engineers, 30 professors in colleges, and 16 heads of corporations. At Cornell the 386 graduates of the course in engineering supplied 16 heads of companies, 165 engineers in full charge or assistants in public or private work, 66 practising engineers, and 22 college professors. It thus appears that of 2,007 graduates 189 have become practising engineers, 108 college professors, while 560, or over one-fourth, are managing manufacturing enterprises. This is a very interesting demonstration of the fact that scientifically trained men can develop business capacity.

CHAPTER XXIII.

NEW OPPORTUNITIES.

Variety of Occupations Available—Hawthorne on Choosing a Profession—Supply Something that People Want—Practical Advice—Seek New Paths—Marvellous Material Development of the Nation—The Producing Field—Changes in Occupations—Census Statistics—Veterinary Science—Electrical Engineering—Telegraphy—Mining—Real Estate—Architecture—Forestry—Farming—Chemistry—Dentistry—Pharmacy—Teaching—Life Insurance—Railway Contracting.

BACON advised parents to choose their children's vocation "betimes," when the children are most "flexible," and not to lay too much stress upon their apparent disposition, unless the child has some extraordinary inclination or aptitude. In that case, it is not good to cross it. It is generally wise to follow the Latin precept: "Select that course of life which is most advantageous. Habit will soon render it pleasant and easily endured."

A superintendent of a French school reports that of 100 pupils 6 intended to follow professions, 23 preferred business, 14 wanted public positions and 57 meant to learn a trade. The preference of American boys is very different. Two-thirds of the pupils in the New York schools take to business. The professions attract a number, while the trades find but little favor in the eyes of either boys or their parents.

The variety of occupations open to young men of

the present day is shown by the statistics of 408 members of the Harvard class of 1898, of whom 100 intended to study law, 29 to study medicine, 45 to teach, 14 to become manufacturers, 12 to prepare for the ministry, and 12 to enter journalism. Later 6 became insurance and real estate agents, 7 chemists, 3 brokers, 2 salesmen, 7 merchants, 4 railroad men, 4 publishers, 13 engineers, 6 bankers, 2 landscape architects, and 2 contractors. Sixteen men continued their studies in the graduate courses, or abroad, and 18 chose some form of business. Among the remaining members there were a biologist, a superintendent of schools, a commission merchant, 2 draughtsmen, 3 writers, a coffee cultivator, an iron founder, a musician, a geologist, an entomologist, a mining expert, a forester, a gas engineer, 3 soldiers, a dentist, a wholesale grocer, a dealer in live-stock, an actor, an artist, and a missionary. At Yale, out of a class of 300, 79 chose law, 22 medicine, 18 teaching, and 9 the ministry.

Most students do not decide what calling they will select until after entering college. This is advisable. It is better to feel one's way, consult with one's teachers, and compare notes with classmates before making a final choice. The first two college years are devoted to general studies, which give breadth and strength. If the student then decides on his future occupation, he can shape later studies in any special direction.

Hawthorne, when seventeen, wrote to his mother: "I have not yet concluded what profession I shall select. Being a minister is, of course, out of the question. I should not think that even you could desire me to choose so dull a way of life. Oh, no, mother!

I was not born to vegetate forever in one place, and to live and die as calm and tranquil as a puddle of water. As to lawyers, there are so many of them already that one-half of them (upon a moderate calculation) are in a state of actual starvation. A physician, then, seems to be 'Hobson's choice,' but yet I should not like to live by the diseases and infirmities of my fellow-creatures. Oh, that I was rich enough to live without a profession! What do you think of my becoming an author, and relying for support upon my pen? Indeed, I think the illigibility of my handwriting is very author-like. How proud you would feel to see my works praised by the reviewers as equal to the proudest productions of the scribbling sons of John Bull!"

In watching the throngs of young and old in the streets, or crowding the trains and ferryboats, on their way to work, I constantly ask myself: "How is it that these men can wear good clothes and live in comfortable homes? Is there any mystery about it? Is it luck or chance?" The simple answer is that the vast majority of the world's workers, leaving out of consideration the few drones in the hive of industry, gain food and clothing and shelter by earning them. Look at the shops lining every street. Is there any question how their owners draw customers? They do it by having something to sell that the public want, and presenting it properly to their attention. The same impression is made by studying the newspaper bulletins and bookstands, the theatre-posters, the doctors' and dentists' signs, the huge hotels and churches, which all teach the same lesson, namely, that to earn a living from the public you need to have

something to give in exchange—food, clothes, luxuries, knowledge, news, entertainments, shoes or sermons, jewels or gingerbread, potatoes or pianos, professional advice, or instruction in the arts. On Broadway, as on the Bowery, enterprise, taste and skill in catering to the public bring their sure returns. The bootblack or the fruit-peddler succeeds in the same way that the merchant or banker does: by sticking to his business, making friends of his customers, spending less than he earns, and supplying what the public wants.

Let every young man, therefore, dismiss from his mind all thought of getting on in life by any new or original methods, but decide that the beaten path which millions have trodden before him is the surest way to prosperity and reputation.

Every past age seems the golden age. It would be laughable, were it not so natural, to hear each generation bewail the departing "great lights" in each profession, and ask in dismay: "Where are their successors to come from?" But as Scott and his generation gave place to Thackeray, Dickens, Carlyle and Tennyson, so a new crop of geniuses comes, and Stevenson, Barrie, Cable, Howells and Henry James fill the public eye. It is the same in every occupation. When people say there is no opportunity for new men, I point to *The Century*, rivalling *Harper's Monthly*, and the rise in turn of *Scribner's*, *The Cosmopolitan*, *Munsey's*, and *McClure's* magazines. As the *New York Times* grew beside the *Tribune*, and was followed by Mr. Dana's *Sun*, so *The World* forced its way to the front. Later the *Morning Journal* and *The Press* were established. *Puck* and *Life* have cre-

ated fields for themselves, yet there is still room for others.

Erastus Wyman remarked upon the large sums of money which are handled in small amounts. The four and a half billion cigars yearly smoked in the United States represent, perhaps, a thousand million sales of a few cents each. The penny weighing-machine has a clientèle of seventeen million people annually. The automatic machines, which disburse chewing-gum, postage-stamps and a dozen other trifles continually gather their harvests of cents and nickels. The newsdealer, bootblack, car conductor, ferryman, dairy-lunch keeper, soda-water dealer, toy and candy seller, fruit-vender, and the small shop-keeper handle many millions of pennies and nickels in their daily transactions, with profits which in the aggregate amount to a large sum. There are innumerable opportunities of which a man with brains and push can take advantage to build up a little business of this kind, if he only keeps his eyes open.

Most men dwell on the drawbacks rather than on the advantages of their own special pursuit. This only proves that every calling has its undesirable features. There is no easy road to fortune. Every beginner should select the occupation for which he has an inclination or is best adapted, and then stick to it.

Goethe remarked that wisdom does not necessarily come with age, and that in certain matters a man may be as likely to perceive rightly at twenty as at sixty. In this age young blood has an advantage. A preference is given to youth and freshness in every calling. The crowds one meets early and late in the cars, on

the ferryboats and streets of every large city are mostly under thirty. Every year a certain number of positions are made vacant by death, removal or other causes. The doors of opportunity are always opening for the wide-awake man.

Fifty years ago a medical man began to practise before he was twenty. The course of study now occupies four years, in addition to four years of preparation. The best men take a year in the hospitals after graduating. The first two or three years of practice are usually years of waiting. The doctor is more than thirty before he gets fairly to work. The same difficulty is found in other professions. Joseph H. Choate said, at a Harvard dinner: "One of the problems we are considering is, How we can bring our boys earlier into the real business of life? A young man now entering a profession begins when he is twenty-seven or twenty-eight, and if by thirty he is able to support a wife, he has succeeded marvellously. I hope something can be done. But don't break up the classes. Squeeze it out of the preparatory schools. Vacations are too long."

The main thing is to get something to do, it makes no difference what, and then work and wait till something better offers. A New York Charity Superintendent says: "Half of the applicants for relief need only to get a start to become self-supporting. The misfortune of many persons is that they do not know how or where to begin."

Here are two characteristic opinions given to anxious parents, who asked their advice about their sons, by two men who have won fortune and honor by hard struggles. The first one said: "Just let these young

gentlemen help themselves a little. You can afford to give them a good education, and that is all they really need. If you coddle them, and give them the idea that they can always rely upon their fathers, it may, in the end, be a positive injury. Love them and encourage them, but put some 'gimp' into them." The other man's advice was equally practical: "If your sons are healthy and willing to work, they will find enough to do, and if they cannot begin at the top let them begin at the bottom, and very likely they will be all the better for it. I was born close by a sawmill; was early left an orphan, christened in a mill-pond, graduated at a log schoolhouse, and, at fourteen fancied I could do anything I turned my hand to and that nothing was impossible, and ever since I have been trying to prove it, and with some success. If I could do nothing better, I would hire myself out to dig potatoes with my fingers, and when I had earned enough to buy a hoe I would dig with it, and so I would climb up."

The humblest person can make himself indispensable. A leading lawyer said: "My office-boy is my most valuable employee." A railway president remarked: "If I had to discharge our whole staff, I would keep my messenger to the last." I know a woman stenographer who has made herself so useful that when she takes her vacation the whole office is upset, and none of her associates can fill her place.

All natural forces follow the line of least resistance. So in life avoid useless competition, and seek fresh fields and pastures new. On this principle Horace Greeley advised young men to "go West," and thousands have acted upon it. Better seek the verdant

prairie-land than try to cultivate worn-out fields in the East.

In like manner many new callings offer a splendid chance for those who start with the right spirit and with proper equipment.

It was once my fortune to have to choose between five desirable vacancies. I applied to a railroad president, a man of wide experience, for counsel. He said: "Take the one which promises the most independence and the greatest permanency, without regard to pay." His advice proved sound, as the openings which seemed most brilliant turned out to be unsatisfactory, while the less-promising place proved pleasant and profitable.

Most men are content to follow the beaten track, others seek new fields and make positions for themselves. When Seth Low graduated from Columbia College and entered his father's office, he felt as if he was of no special value. A friend advised him to go out among the brokers and get points on the street, instead of sticking in doors. He did so. As a result, in six months he knew more about the business than any one in the firm, so that his judgment on many matters was accepted by his father and acted upon. A friend of mine who had lost his position as bookkeeper and who failed to find a similar place started the business of sending cipher cable messages. Later he made a specialty of printing cable-codes. He now makes a comfortable livelihood.

Tiffany, the jeweller, is a good example of the value of avoiding ruts and striking out new paths in business. Novelty always attracts attention. The leader *makes* himself conspicuous in the public eye, and, if

successful in one thing, every one thinks him infallible, and follows his lead.

Vanderbilt was quick to abandon steamboats for railroads when the time came. Robert Bonner founded his success on novelty in advertising. A. T. Stewart drew trade by selling only for cash, and treating rich and poor alike. He told every salesman to show just as much consideration to customers who entered from Fourth Avenue as to those coming from Broadway. He made it possible for the merest child to buy on equal terms with the millionaire. A lawyer remarked to a friend, on the steps of the Astor House: "It has taken me thirty years to discover that I am not fitted for success at the bar, and I am going to give up law and take to mechanics." Within a few years he patented a valuable invention, and sold it for a large sum. In considering law, journalism and medicine, I have urged the beginner to stay away from the big cities until he has made his mark in the smaller field. I should also advise young men to avoid the old and crowded occupations and seek the new callings, to avoid competition, and to obtain the advantage of being first in a new field. Bacon said: "The young are seldom innovators," yet while the pioneer has to face many trials, when he is established he has a decided advantage in being a pioneer.

Ability is always in demand. Tom Scott, when applied to on behalf of a young man, remarked that he had half a dozen well-paid positions vacant, but could not find a capable man to fill them. E. Bok, discussing "The Young Man in Business," says: "Upon inquiry among publishers I heard of no less

than six well-paid openings which were waiting for the men to fill them."

I should never advise any young man to retain a position, however pleasant and profitable, which ties him to a desk or inside of a bank-railing, with no chance for gaining acquaintance or knowledge of the world. Such men end by sticking in a rut, with no increase of pay, until they become mere machines, adding up columns of figures or doing mere routine work. By all means avoid such stagnation.

The whole problem may be stated in a sentence: Don't look around for opportunities, but take the next step in the direction in which things seem to tend. Either supply an existing want better than any one has done it before, or create a new demand. If you enter the crowded callings, you must meet and surpass able and numerous rivals. If you find a new opening, you avoid pressing competition and have the advantages of a virgin field.

The world moves. There are no grounds for assuming that our national growth will cease, or that our industries will not continue to expand and give abundant opportunity and rich rewards to the coming generation.

Speaker Reed remarks that we have reached the business era. The Union Pacific receipts for one month ($2,500,000) equalled the total yearly revenue of Queen Elizabeth. The present gross receipts of American railroads, even in dull times, would have supported three hundred kingdoms of the size of Henry VIII.'s. These figures indicate the boundless opportunities afforded by the marvellous material growth of the Union.

Within a few years $150,000,000 has been invested in electrical railroads, in addition to the capital employed in other electrical plants. The manufacture of bicycles has grown to vast proportions. The palace-car industry built the town of Pullman. These new industries give employment to thousands. The fire insurance interest represents hundreds of millions, and is steadily increasing. Over 800,000 men are employed by American railroads, including some 2,000 officers and 7,500 clerks, while miles of new tracks are added yearly. There are over 10,000 persons engaged in the express business. The United States Government employees, under civil service rules, numbered 85,000 persons in 1896. Labor-saving devices throw men out of work, but indirectly they supply employment to others. American sewing-machine companies give work to 10,000 hands. Since the introduction of steam, thousands of men have found occupation in building engines, boilers, rails, cars, bridges, etc. The making of telegraph wires and cables is a large industry. New processes for preparing and packing foods give employment to thousands, and add to every man's earnings by cheapening domestic supplies. Fourteen millions have been embarked in raising California fruits, and seven millions in flower-culture. The last half-century has seen an enormous extension of the American railway system gridironing the Union with iron rails. Millions of immigrants from abroad, and from other States, have populated the West, where farms have multiplied and towns and cities have grown up like mushrooms. The New South since the war has developed its mines and factories to vast proportions.

This is a period of advancing civilization. Wealth is increasing, and with it a love of luxury. Public taste is improving. The best of everything is appreciated. Such spectacles as the Horse and Dog shows in New York, or the Bradley-Martin ball, would have been impossible before the war. There is unlimited opportunity to cater to the desires of prosperous Americans by gratifying their taste, comfort and love of ease. It is also an age of specialties and of organization. On the one hand, the huge department-stores gather a host of diverse articles under one roof—dressgoods and groceries, underwear and hardware, books and bicycles, furs and furniture, shoes and satins. On the other hand, some men devote their entire attention to making one thing—neckties, picture-frames, lamp-chimneys, pocketbooks, printer's ink, ice cream. Others make a specialty of dealing in old furniture, rare books, prints, bric-à-brac. No less than $200,000 worth of the Cuban war revenue-stamps were bought by stamp-collectors. There is an ever-increasing number of popular fads, any one of which can be made the basis of a new business.

It seems to me that the producing field is far wider, and offers more chances to the beginner who has no capital but his hands, than the commercial field. The bridges, aqueducts, tunnels and other great enterprises now being executed could not have been carried to completion by the men trained before the war. They require a higher class of artisans, and more skilful superintendents than were the men of that day. Executive talent is now in demand. A position as "captain of industry" in the great indus-

trial army should offer the highest stimulus to the ambitious American. The success of Andrew Carnegie in America, Brassey and Bessemer in England, and Krupp in Germany should satisfy the most aspiring. Whoever can "make two blades of grass grow where one grew before" is a public benefactor. Men like Pillsbury, in the flour industry; Pullman, the inventor of the palace car; Cramp, the ship-builder; Fairbanks, the scale-maker; Steinway, the piano-maker, and a host of other like men are far more to be admired and emulated than the sham successes of the Stock Exchange.

The following table shows, in a general way, the five principal groups of occupations for men in this country, and also their comparative growth or decline from 1870 to 1890.

Occupation.	1870.	1890.
Agriculture, fisheries, and mining	40.29	34.22
Professional service	1.96	2.60
Domestic and personal service	9.39	11.06
Trade and transportation	8.48	12.72
Manufacturing and mechanical industries	14.71	16.69
Total	74.83	77.29

Agriculture has declined, owing to the introduction of farm machinery, which has tended to make hand-work arduous and unprofitable. The professions have gained in numbers and popularity. Trade and transportation have increased fifty per cent. Manufacture and mechanical industries show a fair advance. The greatest increase has been in the higher departments of business, in those occupations which call for skilled labor. ("Bulletin of Department of Labor," January, 1897, p. 416.) The influx of machinery has slightly

lessened the number of male wood and leather workers since 1870. The number of textile workers has remained stationary. There has been a slight decrease in the number of boatmen, fishermen and sailors; also among laborers in general. There has been a uniform increase in the number of clothing-makers, locomotive engineers and firemen, food preparers, metal-workers, printers, engravers, bookbinders, steam-railroad employees, tobacco and cigar factory operatives. Bankers, brokers, merchants and manufacturers have increased slightly, and also professional men, but agents, collectors and commercial travellers, bookkeepers, clerks and salesmen show a far greater increase, despite the influx of women into commercial life.

I have compiled from the census reports the following list of occupations which show a marked increase in numbers engaged therein from 1870 to 1890. This will indicate the tendencies of the time, in connection with this subject, and will guide the beginner in his choice of a calling:

	1870.	1890.
Builders and Contractors	10,231	49,988
Publishers of Periodicals and Books	1,577	6,284
Apiarists	136	1,773
Livery-Stable Keepers	8,504	26,757
Actors	2,053	9,728
Architects	2,017	8,070
Artists and Art Teachers	4,081	22,496
Authors	979	6,714
Chemists and Metallurgists	772	4,503
Gardeners, Florists	33,632	72,601
Designers, Draughtsmen, Inventors	1,286	9,391
Engineers, Surveyors	7,374	43,239
Musicians and Music Teachers	16,010	62,155

	1870.	1890.
Theatrical Managers	1,177	18,055
Veterinary Surgeons	1,166	6,494
Agents and Collectors	20,316	174,582
Commercial Travellers	7,262	58,691
Telegraph and Telephone Operators	8,316	52,214
Confectioners	8,219	23,251
Trunk and Pocketbook Makers	2,047	6,279
Paperhangers	2,490	12,369
Plumbers, Gas and Steam Fitters	11,143	56,607
Roofers and Slaters	2,750	7,043
Clock and Watch Makers	1,779	25,252
Electro-platers	....	2,756
Lead and Zinc Workers	649	4,616
Metal-Workers	79	16,694
Stove and Furnace Makers	1,543	8,932
Wire-Workers	2,796	12,319
Hosiery-Mill Operatives	3,653	29,555
Silk-Mill Operatives	3,256	34,855
Upholsterers	6,111	25,666
Wood-Workers	10,789	67,360
Box-Makers	6,080	28,640
Photographers	7,558	20,040
Piano and Organ Makers	3,579	15,335
Potters	5,060	14,928
Rope and Cordage Makers	2,675	8,001
Telegraph and Telephone Linemen	....	11,184
Dairymen and Dairywomen	3,550	17,895
Lumbermen	17,752	65,866
Stock-Raisers	15,359	70,729
Wood-Choppers	8,338	33,697
Street-Railway Employees	5,103	37,434
Bleachers, Dyers, and Scourers	4,901	14,210
Mineral Waters	458	7,230
Oil-Works Employees	1,747	5,624
Messenger and Office Boys	8,717	51,355
Packers, Shippers	5,461	24,916
Janitors	1,769	21,556
Sextons	1,151	4,982
Watchmen, Policemen, Detectives	13,384	74,629

In this country of almost universal horse-worship, where most persons of any means own a trotter, not to mention the millions of cattle on a thousand hills, there is ample field for the veterinary profession. Thus far it has hardly been sufficiently appreciated. It will not be long, however, before sensible men will refuse to intrust the care of valuable animals to any but trained veterinarians. It does not take long to master the profession, and young men who are looking about for a calling should ponder its advantages.

The value of live-stock in the United States is enormous. Some of the items are as follows: Horses and mules, 11,149,800; cattle, 27,870,700; sheep, 35,935,300; swine, 25,726,800. No other country can make a showing which approaches these figures, and yet no country is so ill provided with veterinary surgeons. In consequence millions of dollars are sacrificed yearly. Hog cholera alone has cost $20,000,000. There is room for hundreds of competent practitioners in this profession.

The course of study at the New York Veterinary College requires two years. The expenses are not heavy. A graduate can earn $1,500 the first year, whereas a young physician's income averages only $300. Leading veterinarians have made as high as $20,000 a year. Some complain of the disagreeable features incident to their practice, but that hardly can be avoided. A farmer who would refuse to give more than a dollar for a doctor's visit to his sick wife will cheerfully pay a three-dollar fee to a veterinary surgeon for attending a sick horse. The charge for a visit to a valuable horse or blooded cow is often twenty-five dollars. The profession is only in its infancy. Its standing

is no lower than was dentistry in the early days of that profession. It promises to equal that of any profession. It demands skill in diagnosis, because the patient cannot be questioned. The veterinarian should be a man of large scientific attainments, excellent powers of observation, and possess sound judgment. The famous Dr. Koch was a veterinary surgeon in Breslau.

There is constant demand upon the veterinary colleges for skilful practitioners, and those who have been sent out thus far have at once stepped into very lucrative practices.

Civil engineering is not so promising a profession as formerly, because of the decline in railway construction. Electrical and municipal engineering offer a better and wider field. In time we may expect to see engineers take up contracting, either in opposition to or in partnership with the practical men who now perform such services. An engineer who can supplement scientific skill with executive and business capacity has abundant opportunities for honorable and profitable employment. The average engineer's earnings are estimated at $2,500. Only forty of the eight hundred graduates from the School of Mines have given up professional pursuits, a far better showing than the record of failures in business. The day has gone by when a corporation can be managed in such a way that, as Tom Scott remarked, "I might make a mistake costing the company $3,000,000, and nobody would find it out." The highest technical training is now demanded of executive officers.

Electrical engineering is one of the newest fields. Enormous capital is invested in electric plants all

over the world. Young men have flocked to the technical schools where instruction is given in electrical science. In the United States there are already 12,583 miles of electric railways. In Great Britain and its colonies there are only 167 miles. This illustrates the extent of the business in this country. The American Society of Electric Engineers has 850 members. Those employed in electrical work throughout the Union number 30,000. Special hands earn from $3 to $5 a day. Numerous graduates from the technical schools receive from $1,000 to $2,500 as laboratory assistants, while high salaries are paid to executive men. Electrical experts earn $25 a day. Patent experts in this branch of inventions charge double as much.

Beginners must start at the foot of the ladder, and not expect much pay or promotion until they show practical capacity. Mr. Edison has recently established a training-school for his employees in order to meet the demand for experienced and skilled foremen and master workmen.

Telegraphy, which gave employment to Edison in his youth, affords a wide field. In 1890 the Western Union had 20,098 offices. In the same year France employed 58,000 persons in the business; Great Britain, 117,989; Germany, 17,454. Vast as is the world's telegraph system, it is not complete. In time no point of commercial importance on the earth's surface will remain unconnected by wire or cable with civilization. A competent telegraph operator should be able to decipher manuscript rapidly and accurately, to send messages intelligently, and to receive and copy them at a fair rate of speed. Quickness is indispen-

sable, but never at the expense of legibility, neatness and accuracy. The Western Union pays $20 a month to beginners, which may be doubled in a year or two if they are skilled and accurate. Four or five years are required to become proficient. Not more than one operator in ten reaches the higher grades. The chief operators, division superintendents and office managers are well paid. Most executive officers began as operators. Promotion is slow unless one has influence.

During the Civil War expert operators were paid $118 a month. Now $60 is the limit. Women are paid $40, or even less.

Many telegraph operators are employed in newspaper and business offices, railways, and in other places, where they have shorter hours, better pay and more agreeable surroundings than they do with the telegraph companies. If in confidential positions, they sometimes receive $75 a month.

The mineral product of the United States for 1895 was valued at $512,000,000. Some of the items were: Pig iron, $82,000,000; coal, $197,000,000; gold, $47,000,000; copper, $38,000,000; silver, $32,000,000; lead, $10,000,000; building-stone, $34,000,000. In the past fifty years the value of the gold taken from California mines exceeded a billion and one-third dollars. A mining expert says: "The progress of the mining industry in recent years has been so great that no man is or can be an expert in all kinds of mining." While there never were so many good specialists in mining as now, there never was such a demand for well-trained specialists. Mining offers for the right men better chances of success than any

other business. The success comes quicker than in other industries. What is more important, a competent man is certain of steady employment at good wages.

Real estate development has always given occupation to thousands. A notable feature of recent years has been the creation of summer and winter health-resorts. The Atlantic coast is lined with hotels and cottages. The Adirondacks and Catskills are filled with camps and parks. Florida, California and Colorado abound in winter resorts. Chautauqua, Asbury Park, and Asheville are examples of rapid and prosperous growth. A single example will show the profit in such undertakings. At Lakewood 25,000 acres were bought for a dollar an acre. In 1898 $25,000 was asked for a corner building-lot. George Gould's house there is said to have cost $250,000. There is room for a hundred more health-resorts all over the Union.

Architecture has made great progress during the past half-century. Formerly most buildings were erected by men who had risen from the ranks, and who started in business without any training. They simply copied conventional plans. This is still the custom in many places, where the average building is erected by the local carpenter, with a large amount of jig-saw ornamentation and very little else. The enormous yearly losses by fire and the wretched sanitary condition of such houses prove their flimsy construction, while their appearance is detrimental to public taste. Large sections of our great cities are covered with houses erected by speculative builders, which have been rented or bought by some of our

best citizens. Gradually there came a demand for more careful and original work. At first this was supplied by builders who supplemented their practical experience by the study of architecture. Their work is to be seen in such buildings as A. T. Stewart's mansion, and in various commercial buildings and institutions. The public, however, were not satisfied with these structures, and required that architects should be able to design artistically as well as to build honestly. Courses of study in architecture have been provided at Columbia University and at the Massachusetts Institute of Technology. Many of the graduates of these schools have travelled and studied abroad, to observe the best models in European cities. It is becoming the rule to employ architects to design all houses or buildings of any pretension. The result of this demand was seen in the buildings at the World's Fair, and in the recent competitions for the Columbia University, the Academy of Design, the Boston Library, and the New York Consolidated Library, besides the countless office-buildings, hotels, municipal and other buildings which have recently been erected.

D. H. Burnham, in *Architecture and Building*, says: "There is a fine field for young architects who have the best available training. There were never in the past, and are not now, such opportunities as the future holds in store for men of high worth."

Forestry has long been practised as a profession abroad. In time it will be made a serious pursuit in this country. The example which George Vanderbilt has set at Biltmore, N. C., and the practical and profitable results achieved there by Mr. Pinchot, now chief

of the United States Forestry Department, have drawn public attention to the importance of such work. Mr. Vanderbilt's example will surely find imitators among other large property owners, Adirondack clubs and State park officials.

Landscape architecture has been cultivated in America since the days of A. J. Downing. Additional lustre has been given to it by the labors of Frederick Law Olmsted, Calvert Vaux, Samuel Parsons and others. It is a very attractive calling, and furnishes opportunity for both the artist and the practical man. It promises to expand steadily, and through the growth of public parks and recreation grounds, and the increased interest shown among cultivated men everywhere, to afford profitable occupation for many trained men.

Raising flowers has become a distinct business, in which several millions of capital are invested. Supplying cut flowers alone gives employment to thousands. A florist who has thirty greenhouses near Short Hills, N. J., says: "Flowers, especially orchids, are as safe an investment as any merchandise." Cut flowers are sent through the mails. When it is stated that $30,000 worth of flowers were used at a New York dinner party, some idea may be formed of their consumption. Twenty years ago there were not two-score florists in New York and Brooklyn. Now the number is one hundred and twelve, while the sales have doubled in eight or ten years, with a steadily increasing demand.

Despite the common belief that farming does not pay, there are abundant chances to make a comfortable living in agriculture, if men are intelligent and

careful, adapt themselves to new methods, and thoroughly understand their business. There are 4,564,641 small farms in the United States, each worth about $2,908. The mortgages do not represent sixteen per cent of the entire valuation. Few city dwellers who work with their hands or fill clerical positions can boast of homes of equal value. While from 1870 to 1890 our population increased only 62 per cent, the number of farms increased 80 per cent and the cultivated acres 108 per cent. The dairymen of New York and Pennsylvania, the fruit-growers of New Jersey and the Hudson River, and the market gardeners of Massachusetts quietly work their small farms, and make them pay. The total dairy product of the Union is over $400,000,000, and the value of the milch cows $362,000,000. Over $16,000,000 are invested in condensed-milk factories, which give employment to 14,291 persons. The product doubled in ten years, and so did the number of employees, while the salaries increased fourfold.

Fish-culture is one of the new and promising industries. There are a score of fish-farms in New England alone. The most barren land will serve, provided there is good water. Raising trout and other rare fish pays well.

Planting fruit-trees along roadsides yields an enormous revenue abroad. It might be made to pay in this country.

Agricultural products constitute seventy per cent of American exports and far exceed in amount our exports of manufactured articles.

The American farmer needs only business tact and technical training to become prosperous. He produces

far less to the acre than the European or Asiatic. He allows a large part of his land to be unproductive. He must learn to utilize barren hillsides, sandy wastes, swamps, and roadsides. He must also learn how to sell his products. The prosperous farmer is not the one who holds his butter and his eggs, his corn and his potatoes, his apples and his wheat, until shrinkage or decay covers all possible advantage of delay, and while waste of time and worry cover more. What the farmer wants is tact in marketing, and that is nothing more than educated common sense.

The average time required to study chemistry is four years. Few students take a liberal course, though all should do so. Most graduates are too ambitious, and expect too much. The chief field is metallurgy, mining and assaying. Chemists are also necessary in breweries, oil and sugar refineries, paint, drug and cigarette factories, and gasworks. The American Chemical Society has nine hundred members, and includes most of the representative men in the profession. There are over two thousand chemists in the United States. Twenty chemists are now employed where one used to be. An income of $3,000 is about the maximum. The cost of fitting up a laboratory is $400 or $500.

A number of chemists are attached to boards of health, and analyze milk, water, air and foods. Many of the ablest men, such as Professors Chandler and Remsen, are connected with colleges. These men are often retained as experts in court, and receive large fees, especially in poisoning cases. A few chemists have made money by inventions. The late Professor Casamajor sold his patents to the Have-

meyer Sugar Company for $75,000. Chemistry is taught in the physical courses of all large colleges. The best schools are in connection with Harvard, Yale, the Massachusetts Institute of Technology, and the School of Mines, Columbia University.

Nearly all the great manufacturing concerns now employ one or more chemists to analyze raw materials and to utilize waste products. Other chemists have their own laboratories. They make their living by analyzing chemical products, acting as experts in lawsuits, giving advice, devising new chemical processes and perfecting old ones.

The development of the chemical industry has kept pace with scientific enlightenment. Many drugs which were formerly imported are now manufactured in the United States. The annual production of chemicals has doubled in recent years.

The graduates in chemistry from the School of Mines find little trouble in securing situations as assistants in mining and manufacturing establishments. The usual pay is $600 to $1,000 per annum. If they show ability and executive capacity, there are fair chances for promotion. Complaint is made of the number of German chemists who are willing to work for small pay, but such men, though they may be careful and accurate, lack the American energy, and seldom rise above subordinate positions. A good chemist, particularly if he is competent to be superintendent, may earn as high as $3,000, and his position will probably be permanent.

Dentistry has become in recent years a profession, with numerous training-schools and with practitioners in every city and town of any size. It is a con-

fining occupation, and therefore not healthful. The successful dentist needs to have manual dexterity. He should also be refined and neat in person. The introduction of new appliances and the help of female assistants have greatly reduced the drudgery of the dentist's work. Outside of the big cities the pay is moderate. In New York many dentists earn large incomes, and have more patients than they can attend to. Skill and social qualities are indispensable. It is only a few years since dentists had no social standing, and were considered charlatans and humbugs. American dentists are unsurpassed. Dr. Evans made a fortune in France because of his social qualities, skill, and the lack of competition from European dentists. Napoleon III. and most of the crowned heads were among his patients.

Handsome fortunes have been made in the manufacture of dental supplies and appliances. This has now become an extensive and flourishing business.

Pharmacy, like dentistry, has grown within a few years from a minor occupation to dignified one. Hundreds of students graduate every year from the pharmaceutical colleges in New York, Philadelphia and Louisville. Many eminent men have been identified with the business.

Sir Isaac Newton commenced his career in the back room of an apothecary shop. Sir Humphry Davy was an apothecary's apprentice. Liebig began as an apothecary's boy, at Darmstadt. The electro-magnetic discoveries of Örsted were commenced in the shop of his father in Denmark, who was a pharmacist. Bequinn, Marggraff, Diesbach, and Scheele, of Sweden, whose scientific researches are famous,

were all apothecaries. Pharmacy, therefore, retains a flavor of science. Unfortunately the business is overdone, and profits have been lessened by competition. The department-stores sell perfumery and drugs. The druggist's hours are long and his work is confining. It is, therefore, a business not to be viewed with favor, unless circumstances are specially advantageous.

Nearly every famous American has at some time taught school. Teaching is excellent mental discipline. One never knows anything thoroughly until he tries to impart it to others. Teaching cultivates patience, sympathy and persistency. The born teacher puts himself in the learner's place, and sympathizes with the latter's point of view and difficulties.

Unfortunately teachers are so underpaid that few men adopt it as a permanent occupation, but use it as stepping-stone to something better. Nevertheless, Dr. J. S. Billings says: "If you have the teaching faculty by all means cultivate it, as it is rare and well paid." The examples of Agassiz and Professor Youmans, on the one hand, and of Presidents Eliot, White, Harris, Adams, Harper and Gilman on the other, indicate the possibilities of success for the broad-minded educator, especially if he has executive ability. Just now there is a great demand for capable instructors in every department.

New York is an educational beehive, filled with students of both sexes, from all parts of the world. Thousands of earnest and ambitious men and women come here in search of knowledge, and particularly of advanced training. Barnard College alone, it is

said, will draw one thousand advanced scholars. Law, medicine, dentistry, science, pedagogy, elocution, music, architecture, and the drama, all have their students. Such institutions as the Training School for Teachers, New York Trade School, the American School of the Dramatic Art, Packard's Business College, Women's School of Applied Design, are but a few of those that offer special attractions for students of all ages and of both sexes. Well-qualified teachers find little trouble in obtaining good positions. The small compensation given to most of them is chiefly due to the competition of women.

College professors complain bitterly of their compensation. The average salary at Columbia is $1,600 and at Harvard $1,200, both rich universities. A few men of international reputation receive $2,500 to $3,000, but the maximum is $5,000. No man can support a family comfortably in a large city on the average professor's salary. If he has not private means, he must live in the suburbs, stint himself in books, clothes, social opportunities, or spend on "pot-boiling" work the time and energy which should be given to his college. The "Harvard Book" contains an eloquent description of the trials and small rewards of college instructors: "Hard-worked, poorly paid, much-tormented martyrs, whose sole solace is contact with youth and freshness, which keeps men young when their comrades have grown old, and keeps them green when the others have dried up."

The professors in American scientific schools are constantly consulted by business men in relation to practical matters, and, therefore, are broader and

more in touch with the best and latest experience than their English or Continental compeers.

The word "science" has to some minds a purely abstract meaning. Few persons imagine that it offers a means of gaining an honorable and profitable livelihood. Yet that such is the case is proved by the examples of Faraday, Tyndall, Professor Henry, not to mention others. Hundreds of such men now fill government positions or are connected with learned institutions. They are contributing to scientific discovery and also to public enlightenment. They are well rewarded for their labors.

A striking example of the possibilities of men rising from the ranks is seen in the case of railroad builders. While a cheap class of labor is employed, and Italians have replaced Irish and Germans, good foremen are in demand. They earn as high as $150 a month. Many of them have worked up from the shovel. They succeed better than civil engineers, who do not seem to know how to handle men. The railway contractor of twenty years ago did his work with the aid of hundreds or thousands of Irishmen, and a sprinkling of Germans and men of other nationalities. The railway contractor of to-day employs Italian labor. It is the custom to sublet all work to small contractors, who undertake four or five miles of road. The small contractor is, in effect, a boss working under the general contractor. The rise of the sub-contractor to the management of large interests is not unusual. Any industrious or saving teamster lays up enough to buy a pair of mules, and is able to get wages for himself and his stock. His next step is to buy another pair and hire a man to

drive them. By the time he has four or five teams he ceases to drive, and becomes a contractor-teamster. He next appears as a sub-contractor, and takes progressively larger and larger contracts, until he finally appears as a general contractor competing for hundreds of miles of railroad. After that his work is that of an organizer, the commander of an industrial army. He seldom visits the actual scene of operations. Perhaps once a month he rides over the line with his engineer, making a suggestion here, asking a question there, making mental note of large features, but seldom troubling about details. "It is absolutely fascinating work," said a Western contractor, "and I long to be at the front. It opens a lucrative field for men of executive talent and honesty, and force of character, though the era of great fortunes made in railway-building is past."

Some 75,000 persons are employed by American life insurance companies. Large salaries are paid to the executive officers. Agents are paid commissions on the business they secure, and earn from $10,000 a year down to $1,000. The agent now receives a commission only on the first premium paid. Obtaining policy holders has become so systematized that it is no longer necessary for solicitors to resort to tricks and devices. Insurance canvassers are usually persons of excellent character. The business requires tact, good address, persistency and knowledge of human nature. An insurance agent must understand figures and know how to persuade. It is an eminently respectable occupation. A local agent in a young town may build up a handsome business. Three New York companies have an annual income of

$133,000,000, and their death claims frequently amount to a million dollars a day.

The number of men employed by the railways of the United States, on June 30, 1897, was 823,476. Among the number were 30,049 station agents; other station men, 74,569; enginemen, 35,667; firemen and watchmen, 43,768; telegraph operators and despatchers, 21,452. The aggregate amount of wages and salaries paid was $465,601,581. In one year 1,693 employees were killed, or 1 in 486; and 27,667 were wounded, or 1 in 30, a greater loss than in many pitched battles. The risks to health from long hours and exposure are great. No one should take up this line of work unless he has a rugged constitution.

CHAPTER XXIV.

TURNING-POINTS IN LIFE.

When do Men Come to Maturity?—Achievements of Youthful Genius—Men who Mature Late—The Twenty-sixth Year—Examples of Success Won at that Age.

THERE are physical and mental crises in life. Such are the periods when childhood begins and ends, when youth merges into manhood, when the twilight of old age presages the nightfall of death. So also there is a time following the period of preparatory training when achievement begins, and beyond which is success. It is the hour of action after long reflection, the time when character crystallizes, as by a feather touch, and when the man or woman finds that golden opportunity, which to some comes but once in a whole life. It may best be compared to the ascent of a hillside. The way is long and hard; the end seems far off. We stumble, fall, slip back, and often despair. Suddenly the last obstacle is surmounted, the summit is gained, and all the grand vista of pleasant valleys and distant peaks bursts into view.

This period of achievement, this "tide, which, taken at the flood, leads on to fortune," seems to come to most persons about the age of twenty-seven. In certain marked instances of precocious development, as with Pitt and Hamilton among statesmen; Byron, Keats, Campbell and Bryant among poets; Dickens, Macaulay and Kipling among prose writ-

ers, the time may be anticipated; while in the case of others—for example, Dante, Hampden and Cromwell —the clock strikes the hour late in life.

Disraeli in "Coningsby" says, "Genius when young is divine." Alexander overthrew Darius at twenty-two. Gaston de Foix was only twenty-two when he stood a victor on the plain of Ravenna. Don Juan of Austria won Lepanto at twenty-five. Cortés was little more than thirty when he invaded Mexico. Maurice of Saxony died at thirty-two. Nelson was a post-captain at twenty-one. Pascal wrote a great book at sixteen. Bolingbroke and Pitt were both ministers before other Englishmen leave off cricket. Grotius was in practice at seventeen, and Attorney-General at twenty-four. Sir Isaac Newton was not twenty when he saw the apple fall. Harvey discovered the circulation of the blood at eighteen. Hartley's great principle was developed in an inaugural dissertation at college. Hume wrote his treatise on "Human Nature" while still a young man. Galileo, Liebnitz, and Euler commenced their discoveries quite young. Chatterton wrote all his beautiful things, exhausted all hopes of life, and saw nothing better than death at eighteen. Burns and Byron both died early. Dickens wrote "Pickwick" at twenty-one, and Daudet issued "Contesa Ninon" at twenty-three. James Payn made his bow to the public at twenty-four. Holman Hunt began to exhibit when he was nineteen, and painted the "Light of the World" at twenty-five. Sir Arthur Sullivan was well known as a composer at nineteen. Sir George Alexander Macfarren produced his first symphony at twenty-one.

On the other hand, Washington was forty-three and John Adams forty when the American Revolution began. Most of the men prominent in public life at the time of the attack on Fort Sumter, including Lincoln, Hamlin, Seward, Chase, Cameron, Andrew Johnson, Fessenden, Thaddeus Stevens and Horatio Seymour, were over fifty.

I have compiled the following data regarding notable persons, to prove my theory as to the age when opportunity first offers itself. I do not assume that native talent or genius is first revealed at any particular period, but that its possessor usually gains his first public recognition at about his or her twenty-seventh year. At that age the rills of youth have merged into a stream of some volume; cartilage has hardened into bone; the bud is ready to burst into full flower.

Milton wrote "Comus" at twenty-seven. Pope translated Homer and Schiller wrote "Don Carlos" at the same age. Dr. Samuel Johnson was doing hack-work for Cave the bookseller and writing his first tragedy at that period of his life. At the same age Addison was travelling on the Continent and gathering materials for "Cato." Berkeley was twenty-six when he published his essay on "Vision." Edmund Burke published his famous "Essay on the Sublime and Beautiful" at twenty-six. Carlyle at twenty-eight commenced contributing his famous critical essays to the *Edinburgh* and other reviews. Lord Chatham entered Parliament at twenty-seven, and at once commanded attention. Jonathan Swift was admitted to dean's orders at twenty-six, and presently began writing the "Tale of a Tub." Lord Mansfield

at that age was called to the bar, where his emoluments were soon so great that he said: "I never knew the difference between absolute want and earning an income of £3,000 a year." The Duke of Wellington, who at school was a dunce, in youth a fop, at twenty-six was so dissatisfied with army life that he petitioned to be transferred to the civil service. This was refused. Two years later he took a conspicuous share in the Indian war. This decided his future. Clive captured Arcot against overwhelming odds, at twenty-six, and a year later fought the battle of Plassey, which established English rule in India. Commodore Perry won his famous victory on Lake Erie in the war of 1812 when he was twenty-seven, and McDonough was thirty-one when he defeated the British on Lake Champlain. James Watt during his twenty-eighth year accidentally received a model of Newcome's steam-engine for repairs, and in consequence pursued the experiments which, a year later, resulted in the cardinal discovery of a separate condensing chamber, the basis of the modern steam-engine. Washington at twenty-eight had married, resigned his colonial command, and retired to his farm, where he lived until he received the call to take command of his country's armies. Canning's brilliant labors in Parliament were recognized in his twenty-seventh year, by his being made Under-Secretary of State. Richard Cobden entered business at twenty-six, and began to acquire the competence which enabled him afterward to carry through the Corn Law Reform. Hugh Miller at twenty-six had become a local celebrity. At that age Napoleon was waiting his opportunity in Paris, which presently came with

what Carlyle describes as a "whiff of grape-shot." The same year he was made commander of the army of Italy, married Josephine, and won the battles of Lodi and Arcole. It was just after Lodi that his ambitious design of conquest was formed. Jeremy Bentham issued his first pamphlet on law-reform at twenty-six. Talleyrand was of the same age when he was made general agent of the French clergy, his first distinction. Montalembert issued his first book, "The Life of St. Elizabeth of Hungary," at twenty-six. Blackstone was made a doctor of civil law at twenty-seven, after delivering his first course of public lectures, the basis of his famous "Commentaries." Raphael went to Rome in his twenty-sixth year, and there began painting his famous frescoes. Beethoven commenced to compose his musical masterpieces at the age of twenty-seven, and Meyerbeer in his twenty-sixth year. Robert Burns published his first poems when twenty-seven. Byron gave "Childe Harold" to the world in his twenty-sixth year. Browning's "Strafford" appeared in his twenty-seventh year, though he had printed poems at twenty-three. Mrs. Browning published verses at sixteen, but "Aurora Leigh" did not appear until much later. William Cullen Bryant received public recognition at twenty-seven, by being asked to read a poem before a Greek letter society. George William Curtis published his "Nile Notes" at twenty-six, and other books in the succeeding year. Robert Louis Stevenson won his first success when he was twenty-eight.

Thomas Jefferson and James Monroe at the age of twenty-six were influential members of the Virginia Legislature. Hamilton at twenty-six was in the Con-

tinental Congress. John Randolph was elected to Congress in his twenty-seventh year. Warren was twenty-seven when he delivered the memorable address on the 5th of March, which aroused the spirit of patriotism and liberty throughout the country. Fisher Ames, at the same age, excited public attention by the ability he displayed in the discussion of public questions. Chief-Justice Marshall practised law with great success in his twenty-seventh year. Lewis Cass quitted law at twenty-eight to enter the army, where he rose to the rank of general. Stephen A. Douglas at twenty-six was practising law previous to running for the State Senate. Charles Sumner sailed for Europe in his twenty-seventh year to study literature and life abroad. Henry Ward Beecher accepted a call to Indianapolis at twenty-six, and began his pulpit labors. Theodore Parker was settled at Roxbury at twenty-seven. Wendell Phillips was twenty-six when he made his great Lovejoy speech at Faneuil Hall, which decided his future career. General Taylor was promoted to a captaincy at twenty-six, and soon after made his mark in the war against Tecumseh. Winfield Scott was made a lieutenant at the same age. Henry Clay began his political life at about twenty-nine. Daniel Webster gained distinction at the same age. Joseph Story, Hamilton Fish, and Senator Edmunds all entered public life at twenty-six, and De Witt Clinton at twenty-eight. Lincoln and Tilden were both admitted to the bar at twenty-seven.

Vesalius at twenty-six was made professor in the University of Paris, and began his researches which established the science of anatomy. Richard Owen at the age of twenty-eight published his "Memoir on

the Pearly Nautilus," which placed him in the front rank of scientific men, and which Huxley compared to Cuvier's best work. Asa Gray published his first botanical work at twenty-six, and thereby gave a great impetus to the study of plants in America. Dr. Fordyce Barker scored his first success at twenty-seven, by a paper read before the Connecticut Medical Association, which led to his going to New York.

Rembrandt was about twenty-six when he painted "The Anatomy Lesson," which made him the most famous of Dutch artists. Rosa Bonheur at twenty-seven, by one picture, "Ninernais," placed herself in the front rank of modern painters. At twenty-six Turner was a full Academician. Munkacsy, when twenty-six, won his first triumph and a medal at the Paris Salon, by his picture, "The Last Day of a Man Sentenced to Death."

Balzac at the same age began his grand scheme of a comprehensive romance embracing the history of society. At twenty-six Thackeray wrote "The Great Hoggarty Diamond," which Frederic Harrison considers equal, for style and pathos, to Thackeray's best later work. Freeman, the historian, gained his first honors when he was twenty-six.

Dr. Jameson says that before Cecil Rhodes left Oxford, when he was about twenty-seven, he had planned his whole South African policy, which was the amalgamation of the diamond mines and the occupation of what is now Rhodesia.

These examples might be multiplied almost without limit, and cases cited of men possessing such great and such varied talent as Martin Luther, Peter the Great, William Penn, William of Orange, Robes-

pierre, Mirabeau, Pestalozzi, Sir Walter Raleigh, Cardinal Mazarin, Longfellow, Draper the historian, and James Gordon Bennett, to illustrate the fact that, with most persons, the tide comes to a flood at about the period named.